ATLAS

zu dem

Handbuch für specielle Eisenbahn-Technik

unter Mitwirkung von Fachgenossen

herausgegeben von

Edmund Heusinger von Waldegg,

Oberingenieur in Hannover und Redacteur des technischen Organs des Vereins deutscher Eisenbahn-Verwaltungen.

Vierter Band.

Technik des Betriebes.

LV Tafeln.

Zweite vermehrte Auflage.

LEIPZIG,

Verlag von Wilhelm Engelmann.

1876.

Wheat



Verzeichniss der Figuren auf den Zeichnungstafeln.

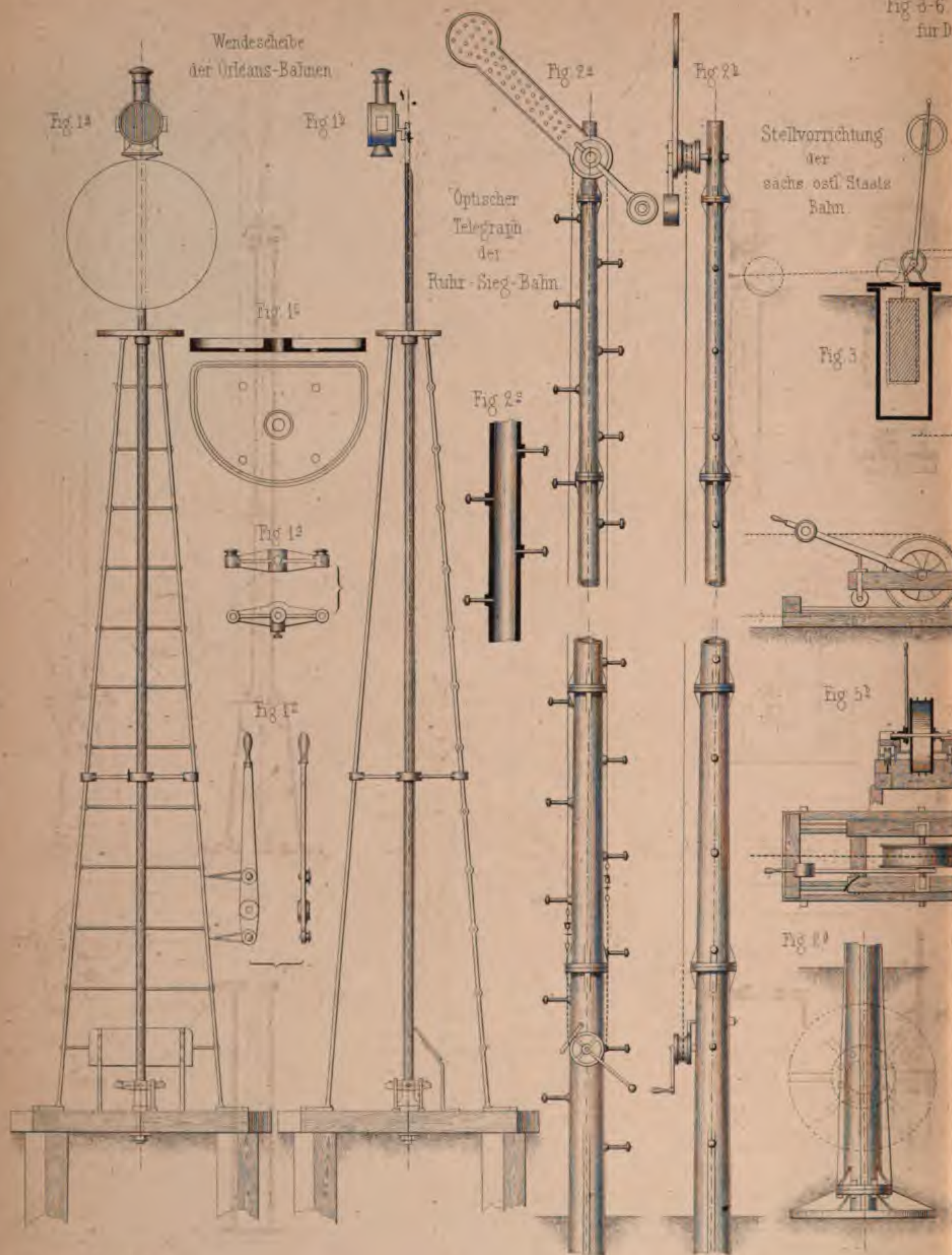
Rohrdicht-Apparate.

Waagen für Locomotiv-Räder-Belastung.

Hebevorrichtungen für Locomotiven etc.

Locomotivwinden.

Signal-V

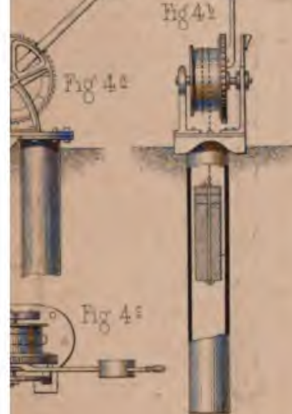


Lith. Anst. F. Wirtz, Darmstadt

htungen

richtungen

gnale

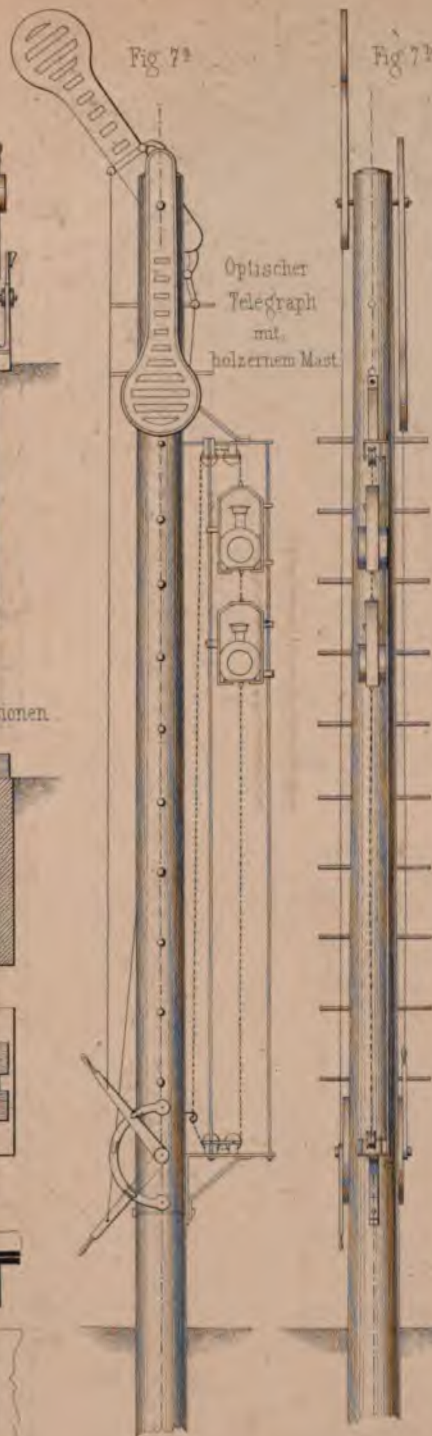


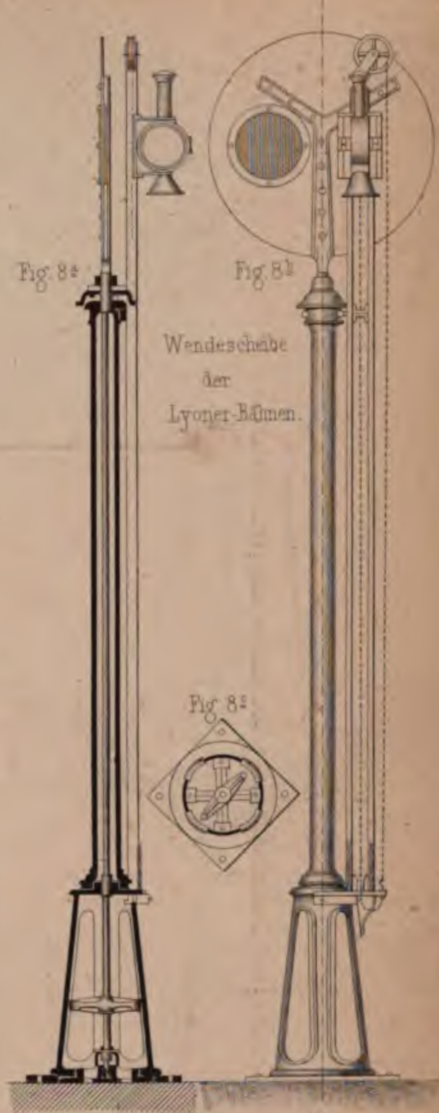
Stellvorrichtung für zweidrähtige Transmissionen

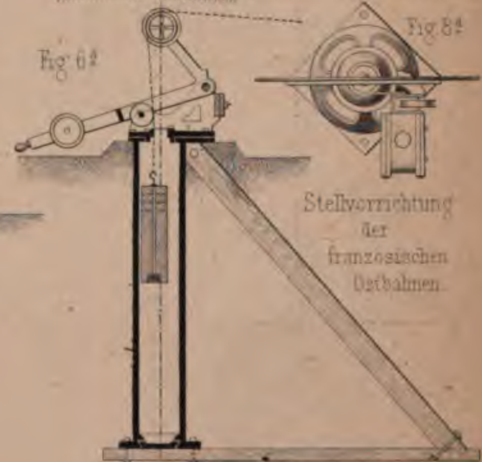










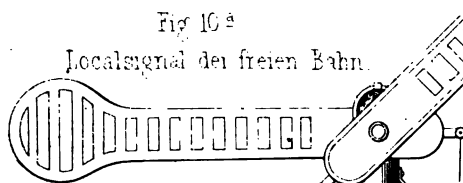


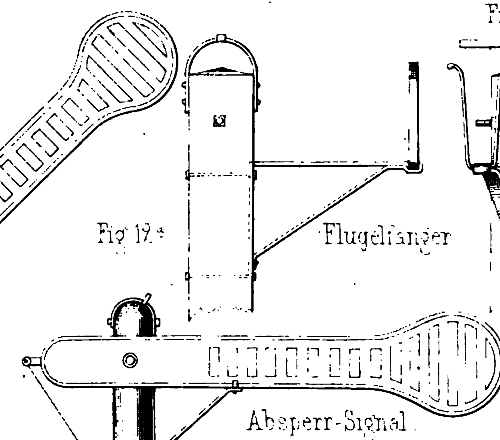
Maassstab der Figuren 1a 1b 1c 4d 6b 1:20 (0,05),
die übrigen Figuren im Maassstab 1:40 (0,025)

Fig. 1-3 Englische Signalvorrichtungen
Fig. 1 Doppeltes Stations-Signal
Fig. 2
Distanz-Signal
Fig. 3
Weichen-Signal
Stellvorrichtung f. Weichen & Signale
Fig. 5a
Fig. 5b
Fig. 6a
Fig. 6b
Fig. 6c
Automatische Wendescheibe (Tunnelsignal)
Fig. 4
Weichen Signal der Nord-Bahnen
Fig. 7
Fig. 8a
Stellhebel

Fig 10 u 11 Flugelsignale der Sachsischen-Staatsbahn

Fig 10 a Localsignal der freien Bahn.





Nacht-Signal der
Berlin-Anhaltischen-Bahnen

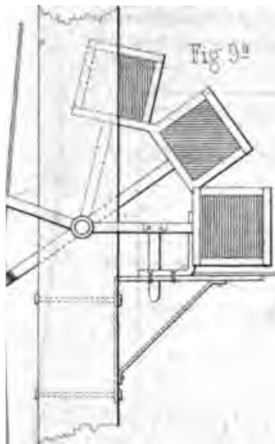
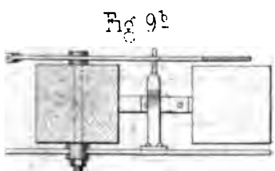
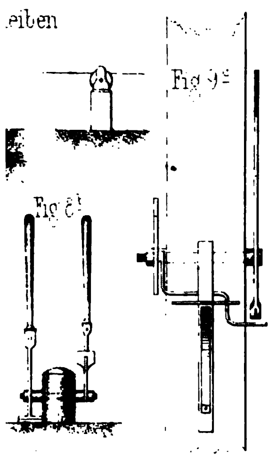


Fig 9 b



.eiben



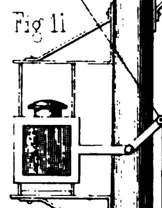
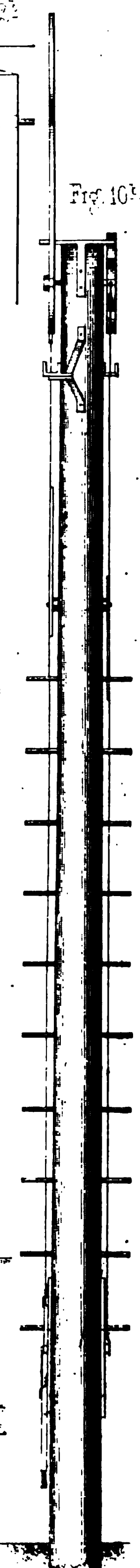


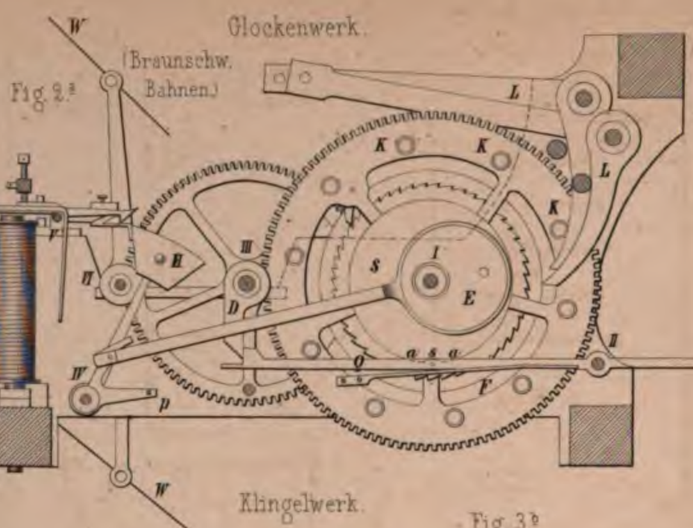
Fig 10 b

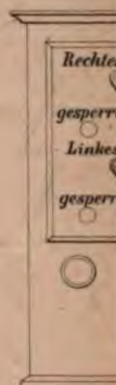


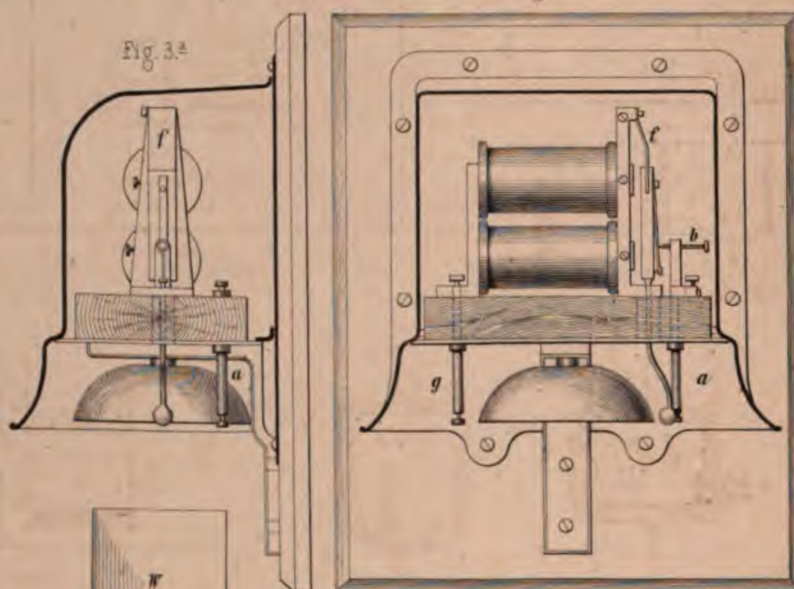


Verticale Schraffage bezeichnet rothe, horizontale, grüne Farbe.


Glockenhaus.
Fig. 1.

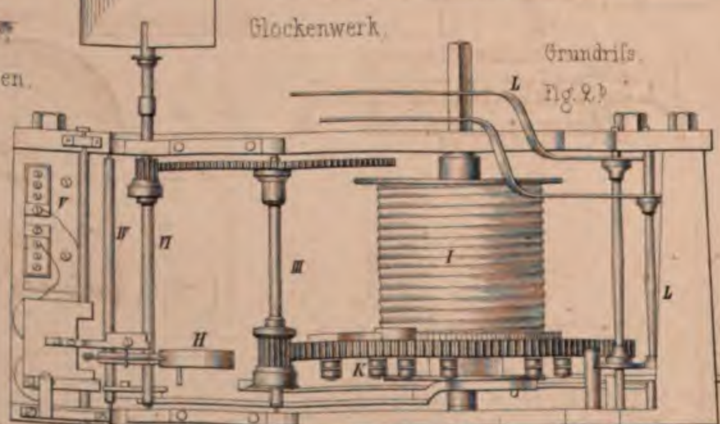

Glockenwerk.
Fig. 2.ª
(Braunschw. Bahnen.)
W
L
K
I
E
S
D
A
p
F


Rechtes
gesperrt
Linkes
gesperrt


Klingelwerk.
Fig. 3.ª
Fig. 3.ᵇ
f
b
g
a
t

ct Apparat f. Wendescheiben.


Fig. 4.ᵇ


Glockenwerk.
Grundrifs.
Fig. 2.ᵇ
L
r
I
H
K
W

Schnit


Fig. 11.ª
Luft

yer's Blocksignal-Apparat

cht der Jndicatoren.

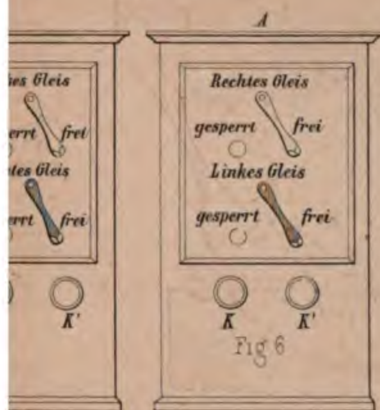
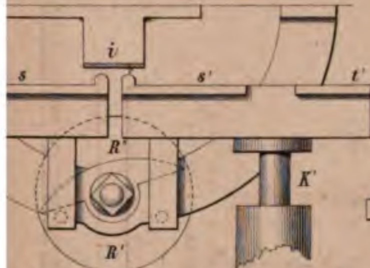


Fig. 6

Obere Ansicht des Jnversor's.



Contact Apparat für Wendescheiben.

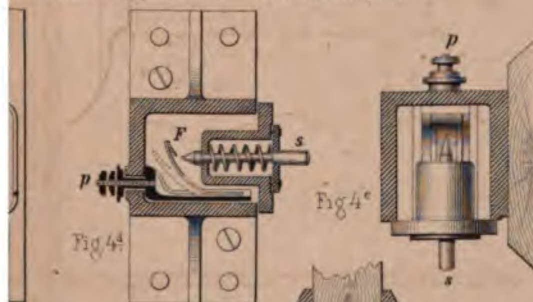


Fig. 4ᵈ Fig. 4ᵉ

ors.



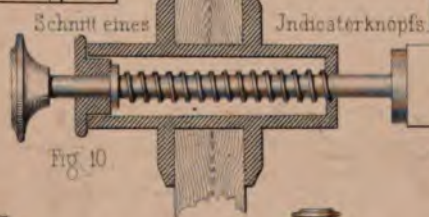

Schnitt eines Jndicatorknopfs.

Fig. 10



Läuteknopf.

Fig. 11ᵇ

Fig. 7ᵃ

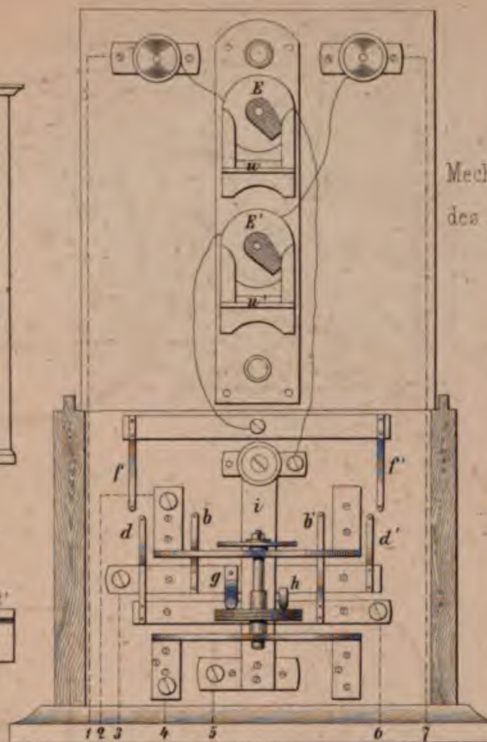


Fig. 7ᵇ

Mechanismus des Jndicators.



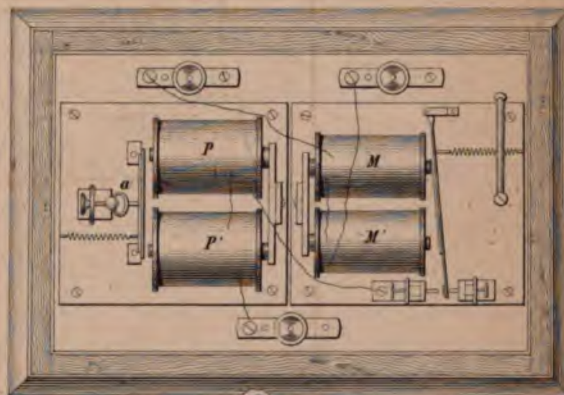
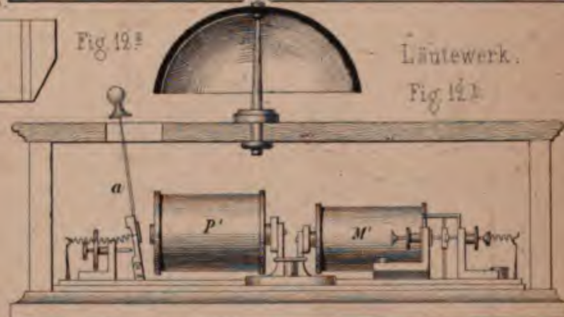


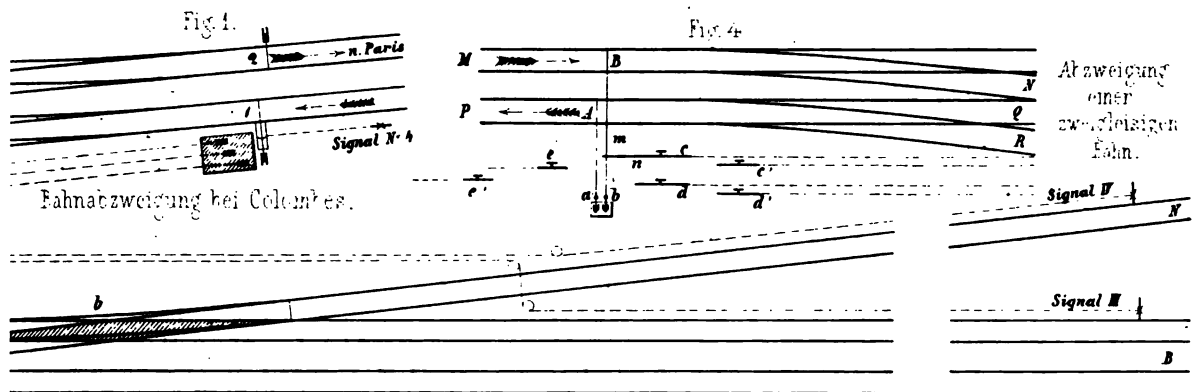
Fig. 12ᵃ

Läutewerk.

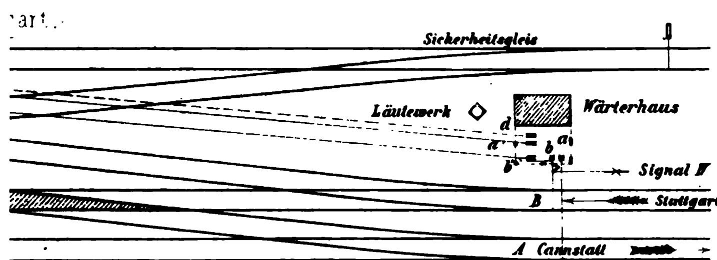
Fig. 12ᵇ

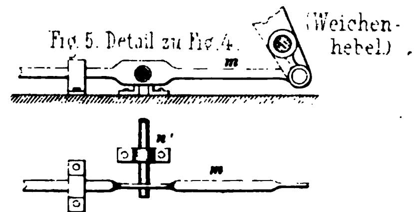


Maassstäbe:
Fig. 1=0,05; Fig. 5 & 6=0,125; Fig. 8, 9 & 10=0,5
die übrigen Figuren 0,25.

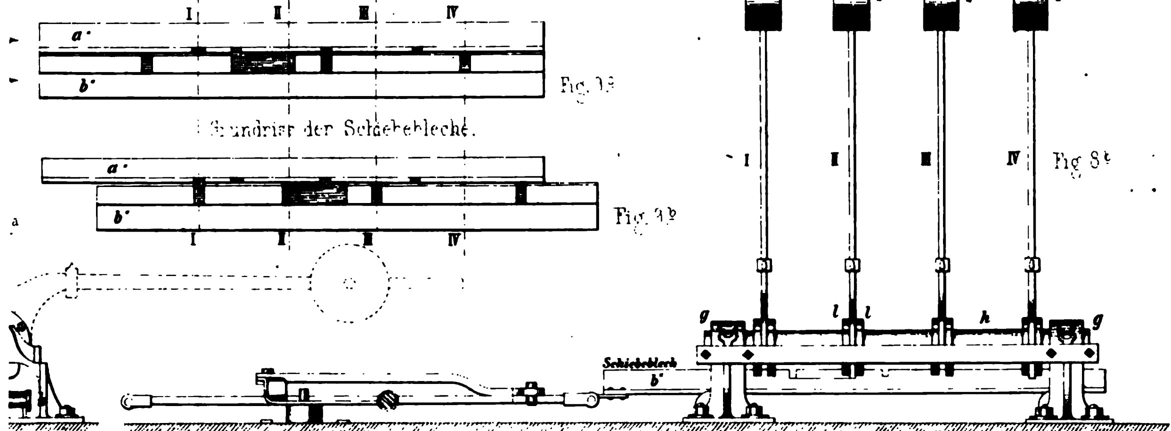


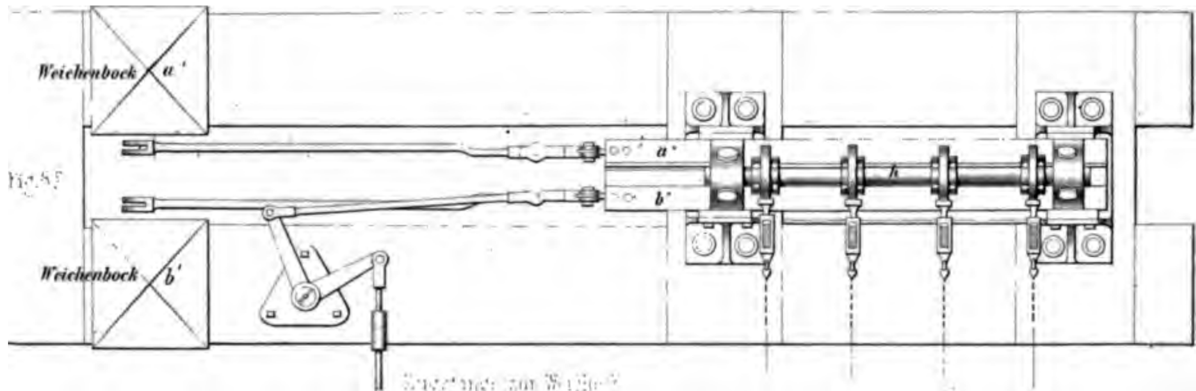
Maassstab der Fig. 1-4 - 0,002.





Stellvorrichtung für Weichen & Signale
Construction von Rüppell







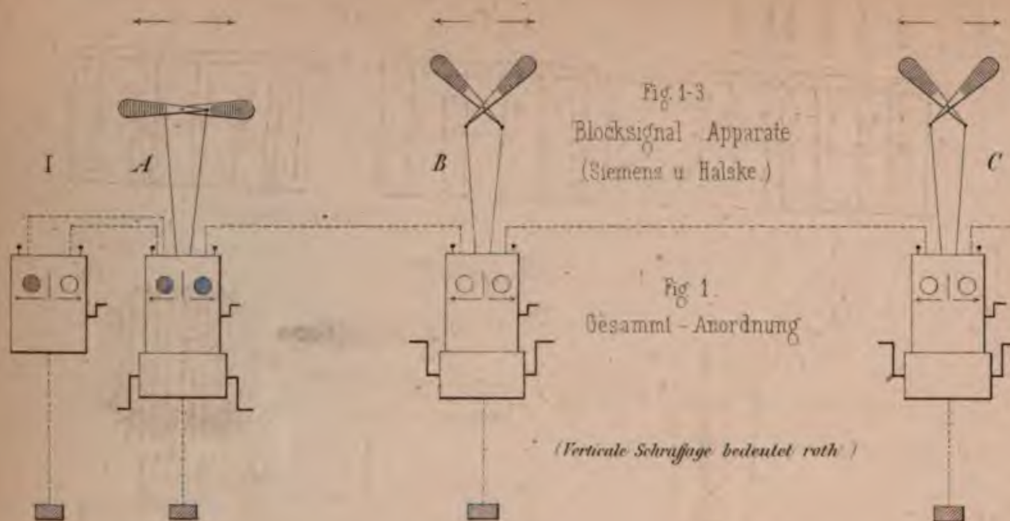


Fig 2.
Signalkasten
eines Zwischenpostens.

Maafstab 0,1.

Fig. 4.
Vorsignal
der
Schleswig'schen Bahn

Fig 4a.

Maafstab 0,04.

Grundriss.

Lith. Anst. v. F. Wirtz, Darmstadt.

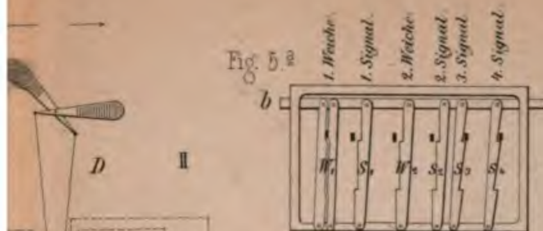






Fig. 5. Central-Apparat für Signal- u. Weichenstellung. (Saxby u. Farmer.)

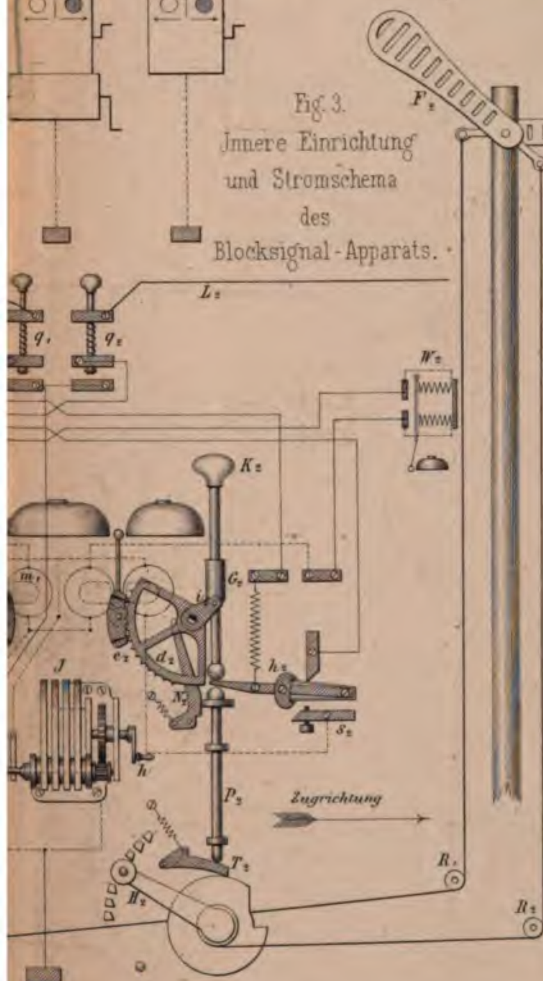
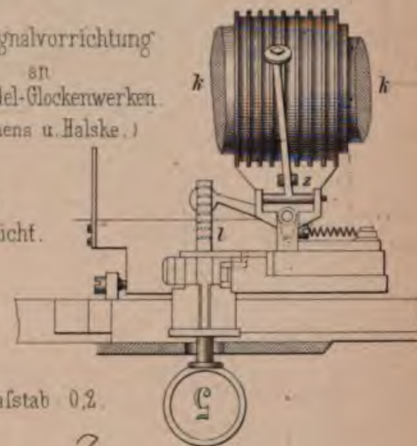


Fig. 3. Innere Einrichtung und Stromschema des Blocksignal-Apparats.



Hülfssignalvorrichtung an Spindel-Glockenwerken. (Siemens u. Halske.)

Fig. 6. a Seitenansicht.

Maafstab 0,2.

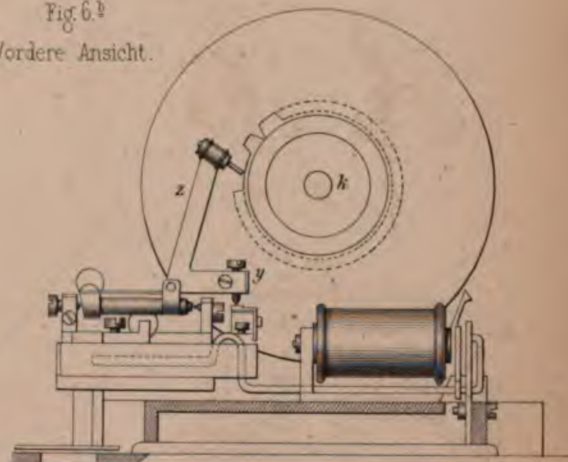


Fig. 6. b Vordere Ansicht.

Verticale Gestänge-Compensation.



Fig. 7. a Grundriss.

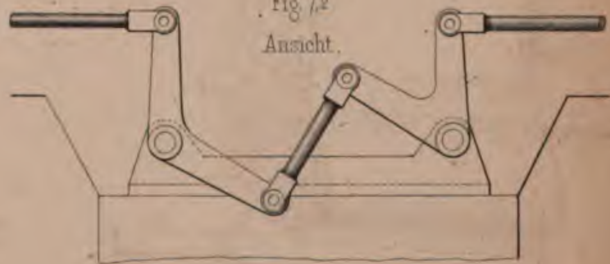
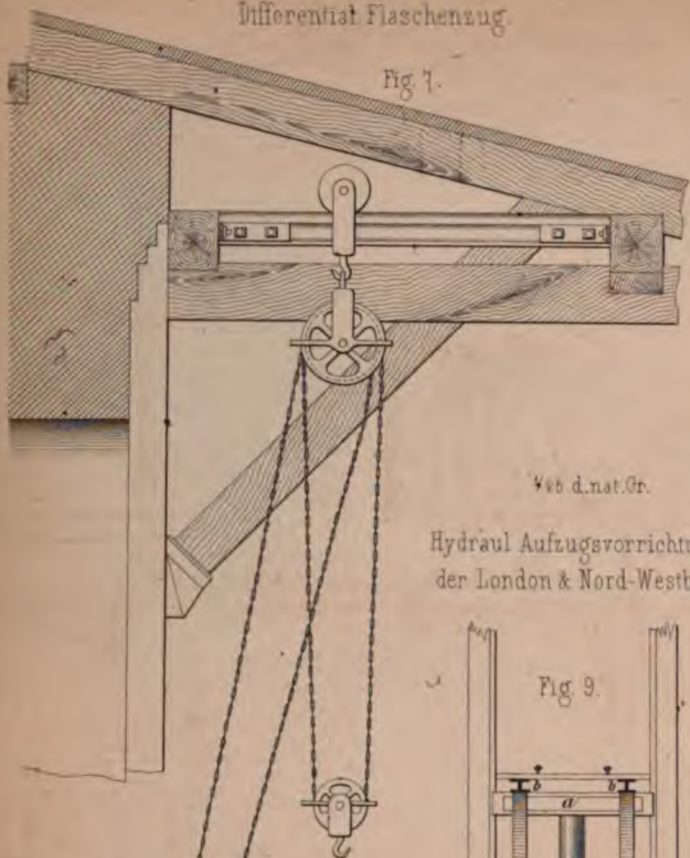


Fig. 7. b Ansicht.

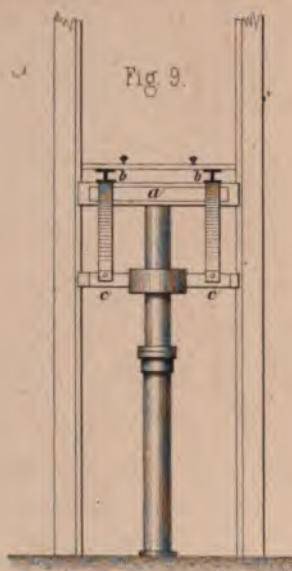
Differential Flaschenzug.

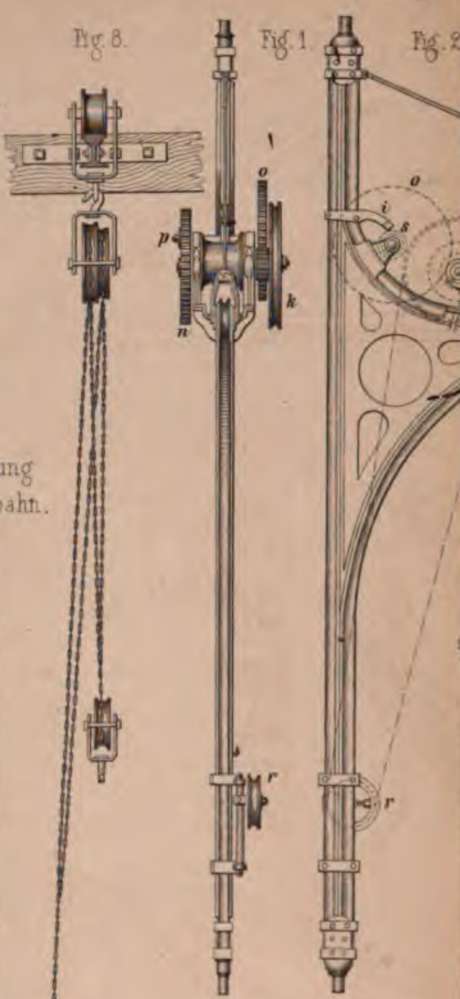
Fester Krahn für Güters
von Seiff

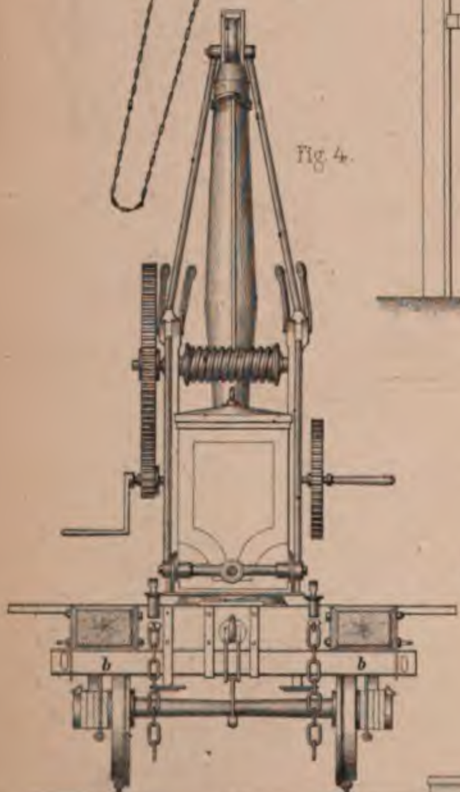


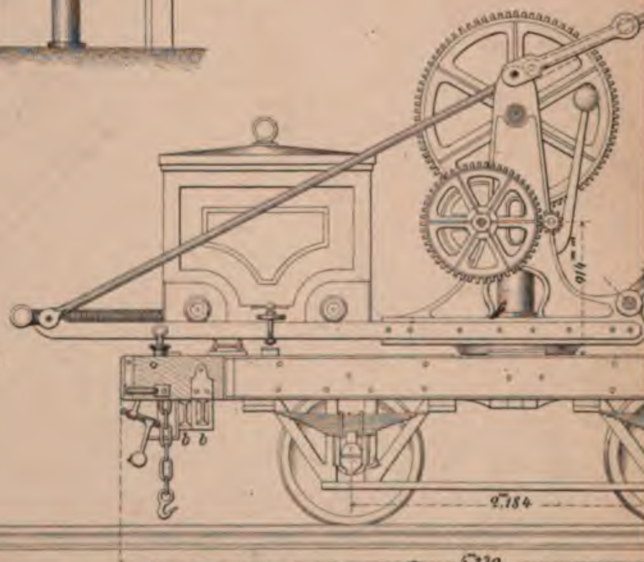
¹⁄₂₅ d. nat. Gr.

Hydraul Aufzugsvorrichtung der London & Nord-Westbahn.









Transportabler Dampfkrahn am Sandthorquai zu Hamburg.

Fig. 5. 1/120 d. nat. Gr.

Hambg. Null

...enegger's Sicherheits-vorrichtung.

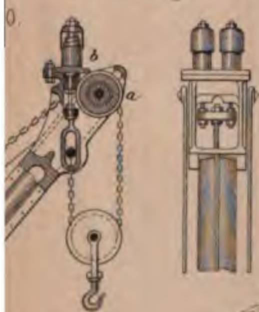


Fig. 11.



Fig. 3.

Eiserner Fahrkrahn von Elias.

1/50 d. nat. Gr.



Krahn von Schnabel & Henning.

Fig. 12.



1/100 d. nat. Gr.

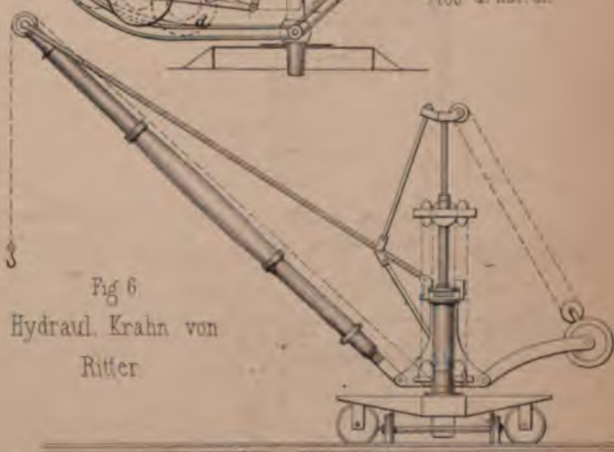
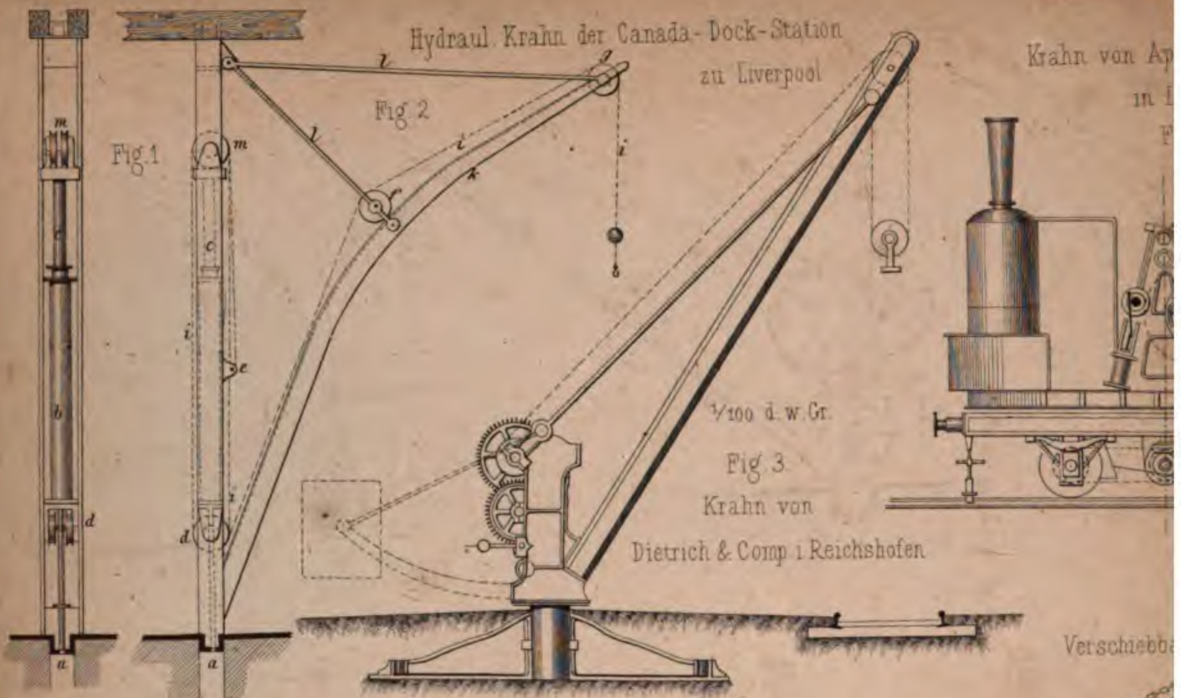
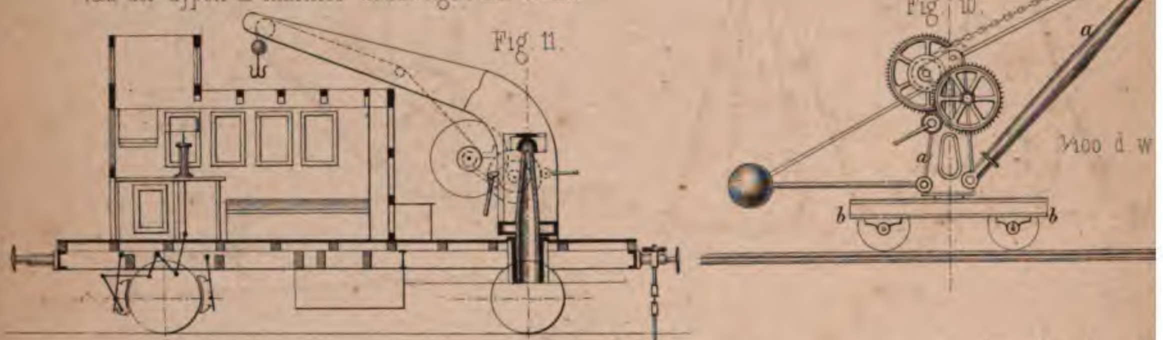
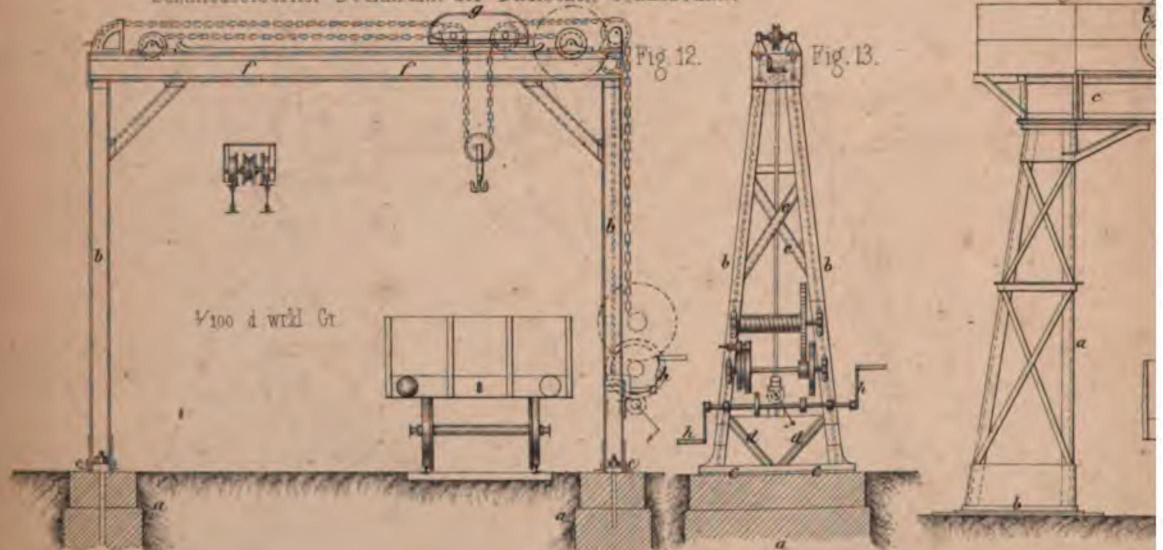


Fig. 6 Hydraul. Krahn von Ritter

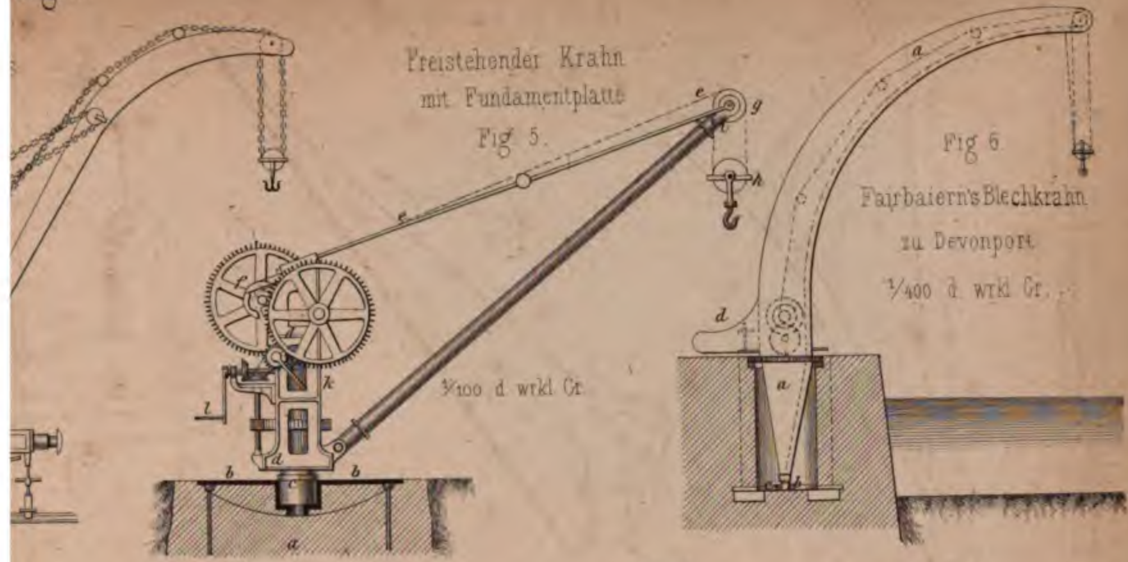
Krahne und

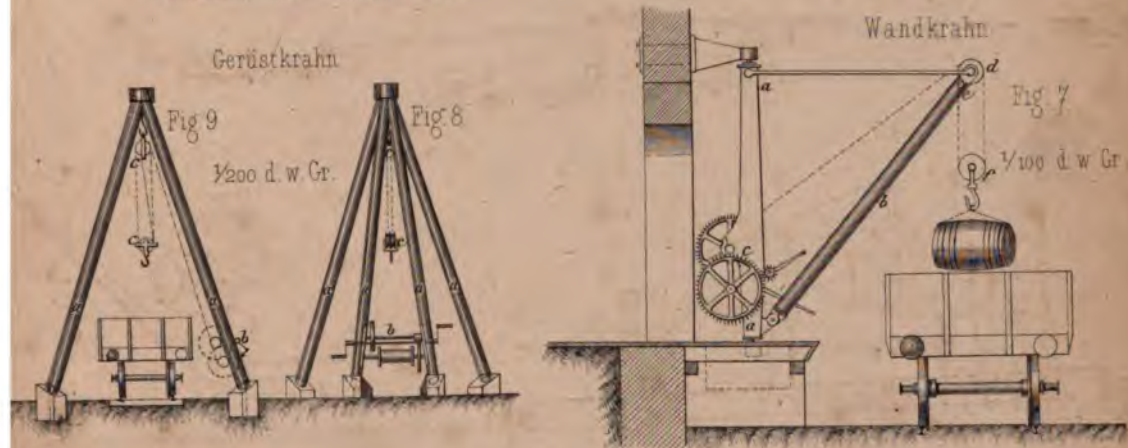


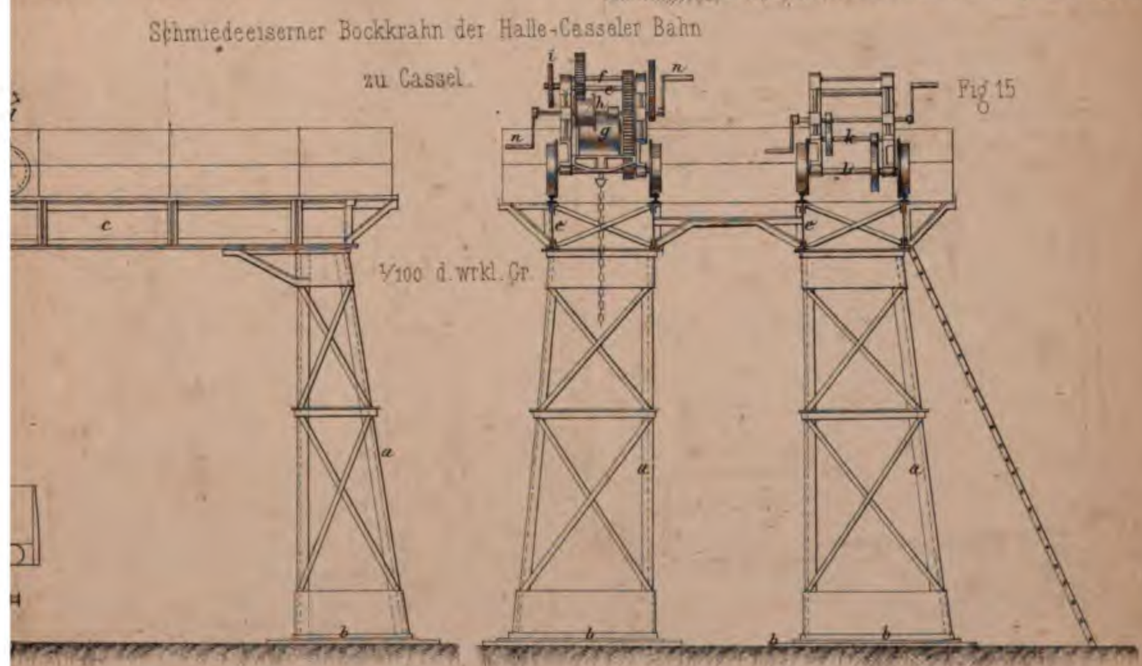




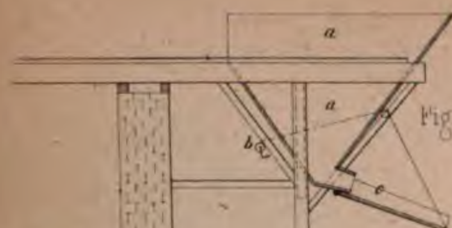
Lith. Anst. v. E. Wirtz, Darmstadt


Freistehender Krahn
mit Fundamentplatte
Fig. 5.
3/100 d. wrkl. Gr.
Fig. 6
Fairbaiern's Blechkrahn
zu Devonport
1/400 d. wrkl. Gr.


Gerüstkrahn
Fig. 9
Fig. 8
1/200 d. w. Gr.
Wandkrahn
Fig. 7
1/100 d. w. Gr.


Schmiedeeiserner Bockkrahn der Halle-Casseler Bahn
zu Cassel.
1/100 d. wrkl. Gr.
Fig. 15

Hebe-und

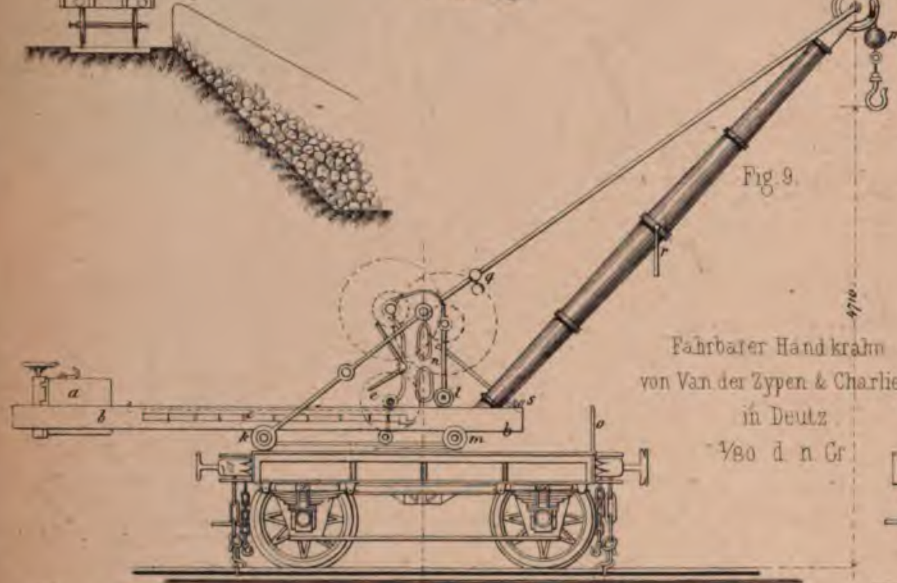


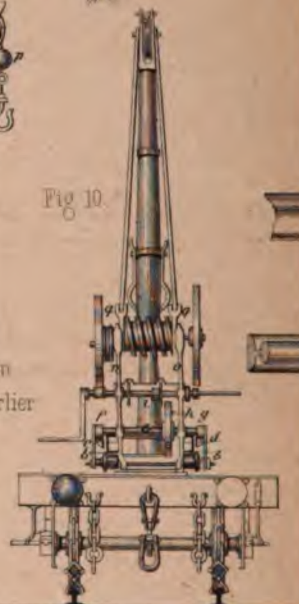


Kohlenrutsche der
Kaiser-Ferdinands-
Nordbahn in Wien.

Fig. 8.







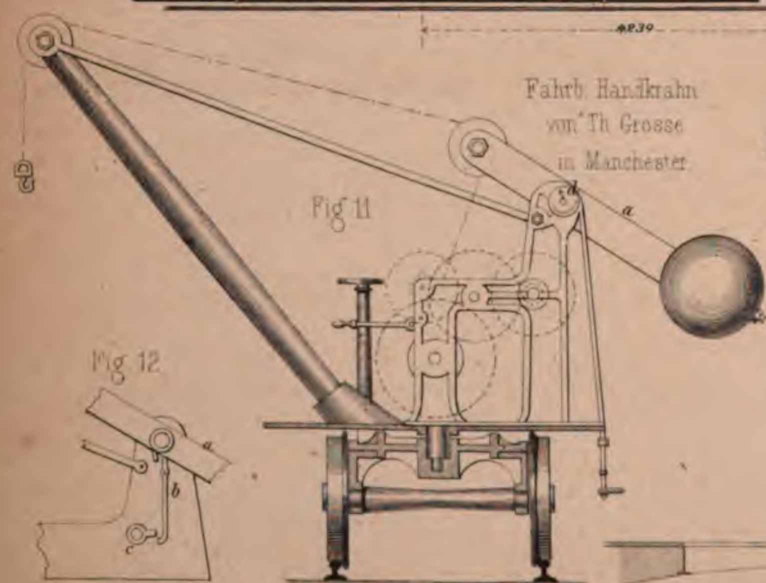
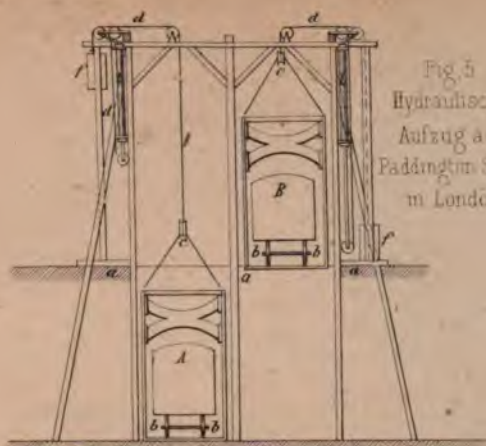


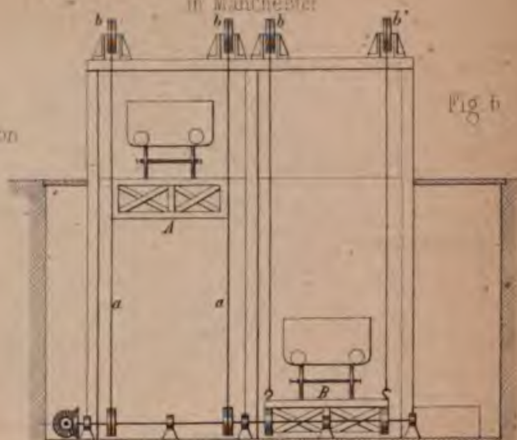


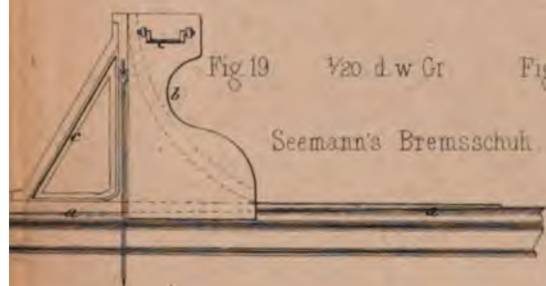


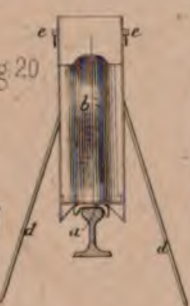

Fig. 4

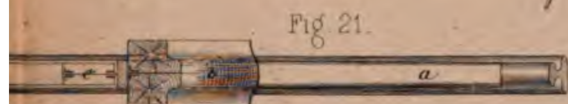

Fig. 5 Hydraulisch. Aufzug auf Paddington Station in London

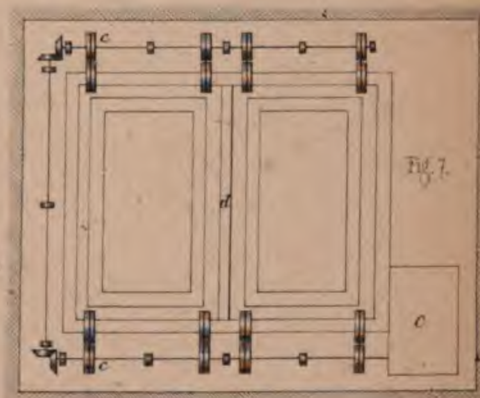
Dampf-Aufzug auf London road Station in Manchester

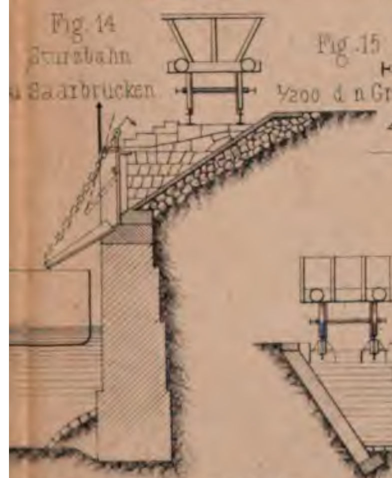

Fig. 6

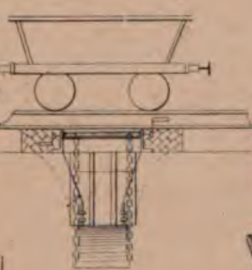

Fig. 19 1/20 d. w. Gr. Seemann's Bremsschuh.


Fig. 20


Fig. 21.


Fig. 7.


Fig. 14 Sturzbahn zu Saarbrücken


Fig. 15 1/200 d. n. Gr.

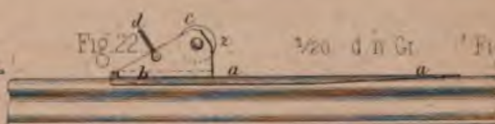

Fig. 22 1/20 d. n. Gr. Fig. 23


Fig. 24 Bute's Bremsschuh

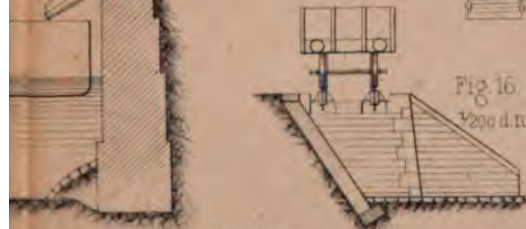

Fig. 16 1/200 d. n. Gr.


Fig. 16a Sturzgerüst der Nassauischen Bahn in Hadamar


Fig. 17

Kohlendepot der Great Eastern Bahn zu London

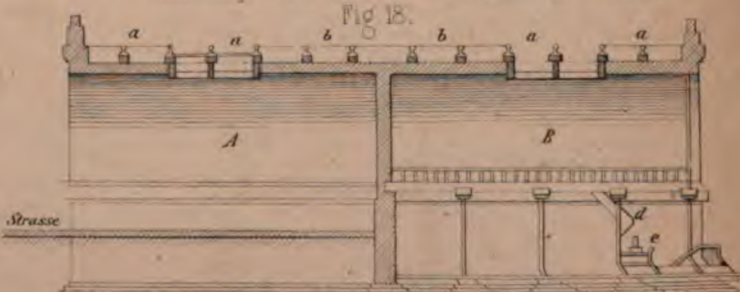
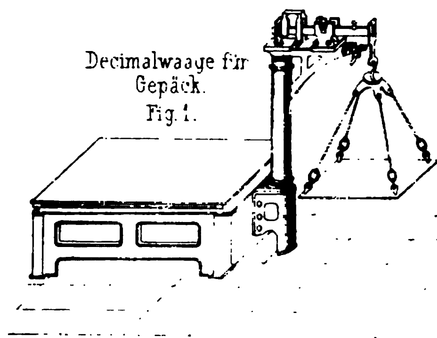
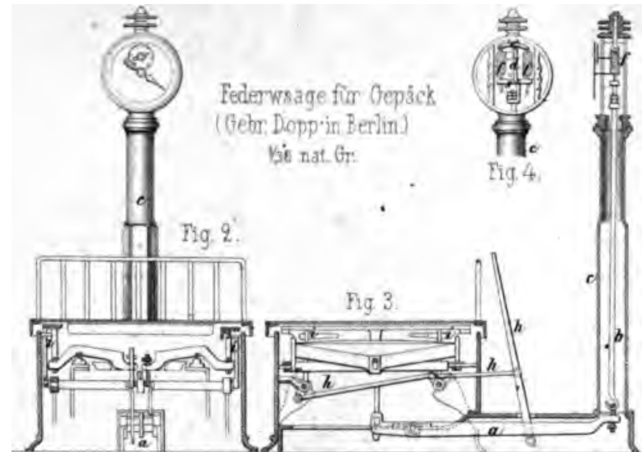
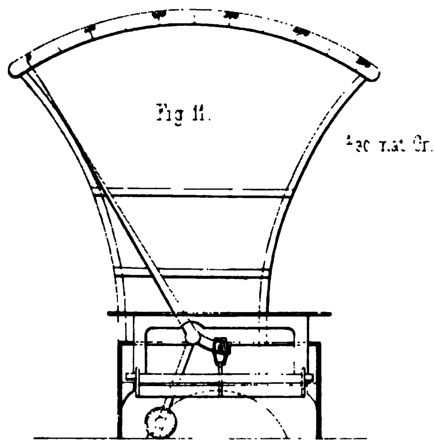


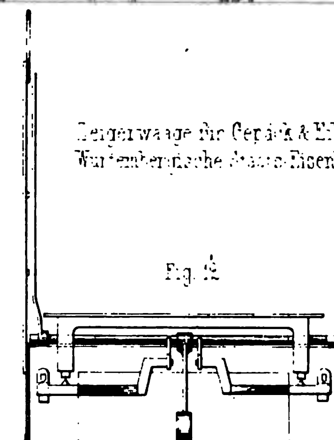
Fig. 18.

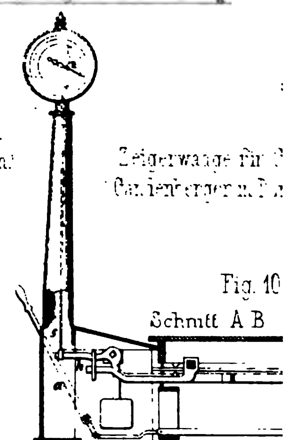


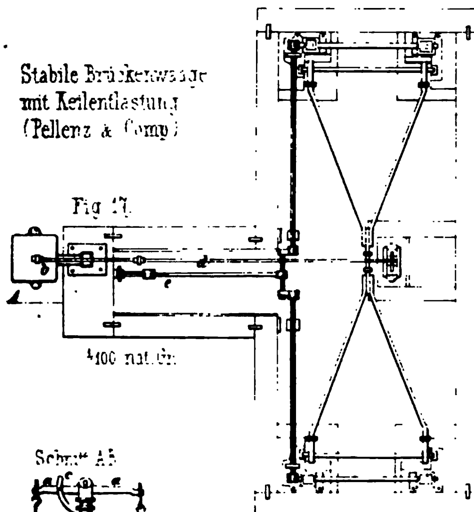


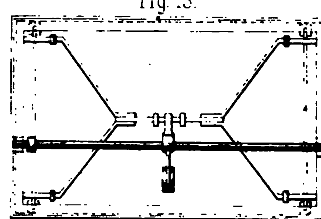


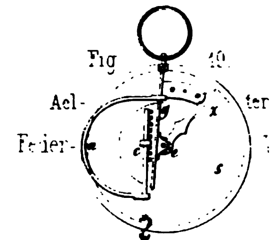




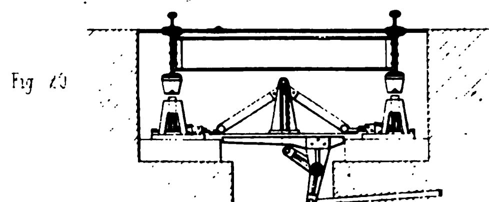


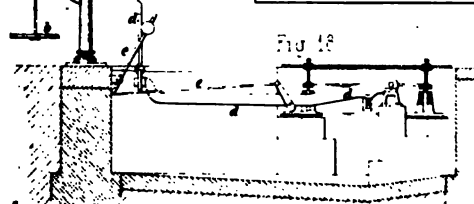


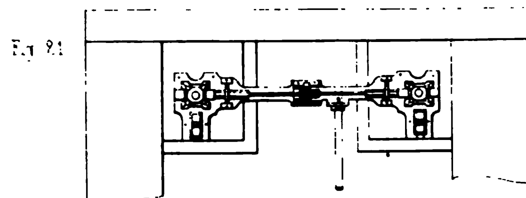




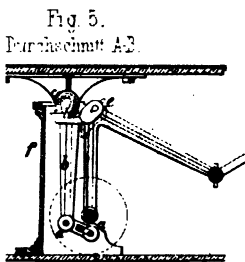
Keil-Entlastung von A. C. Herrmann in Berlin

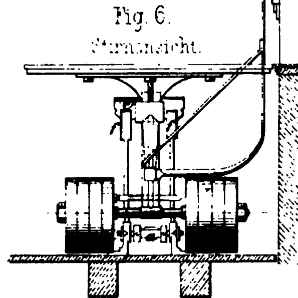


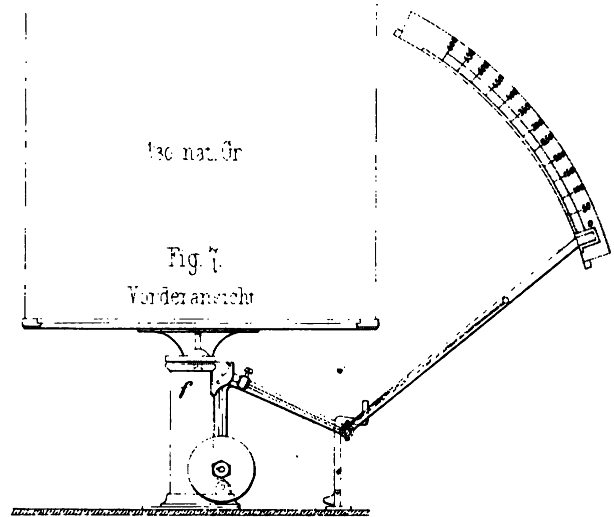


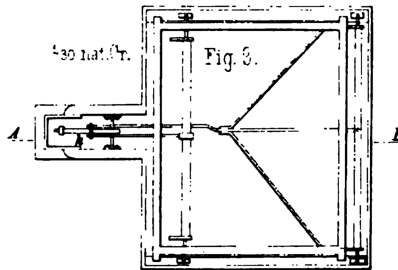


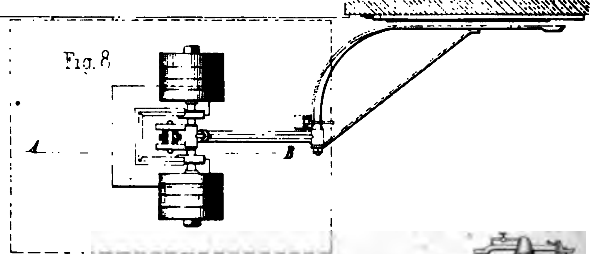
…waage für Gepäck.
(…Mindener Eisenb.)



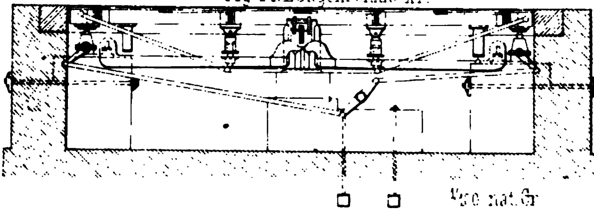


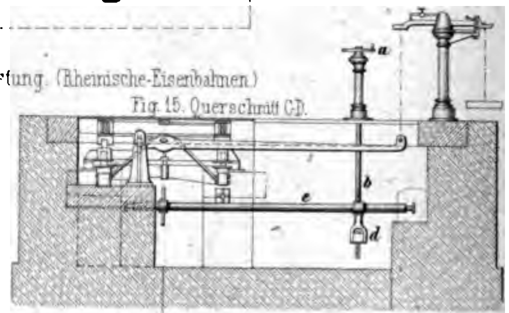


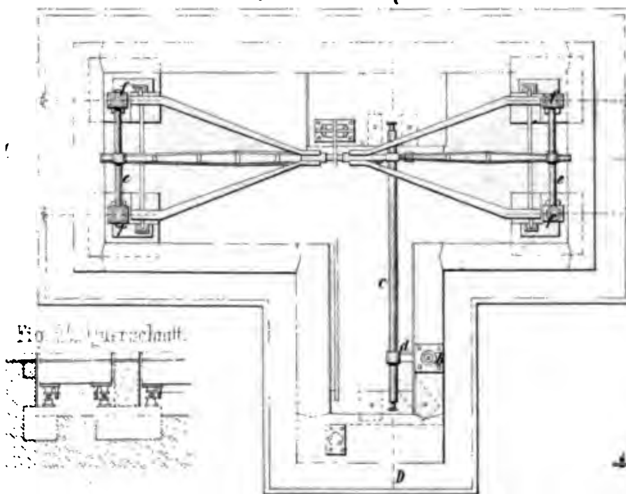




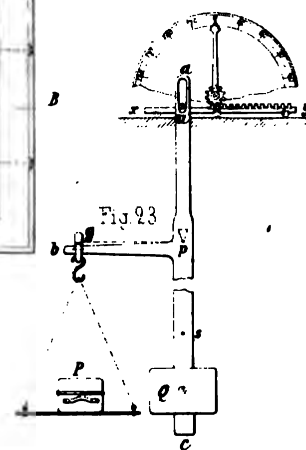
Jacob Beylen's Centesimal-Brückenwaage mit Excentric-Entlastung. (Rheinische-Eisenbahnen.)



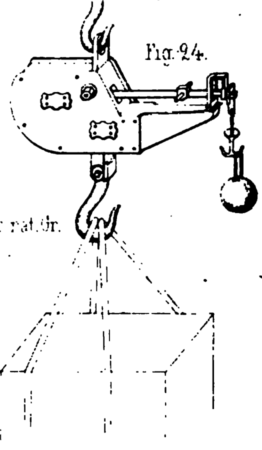


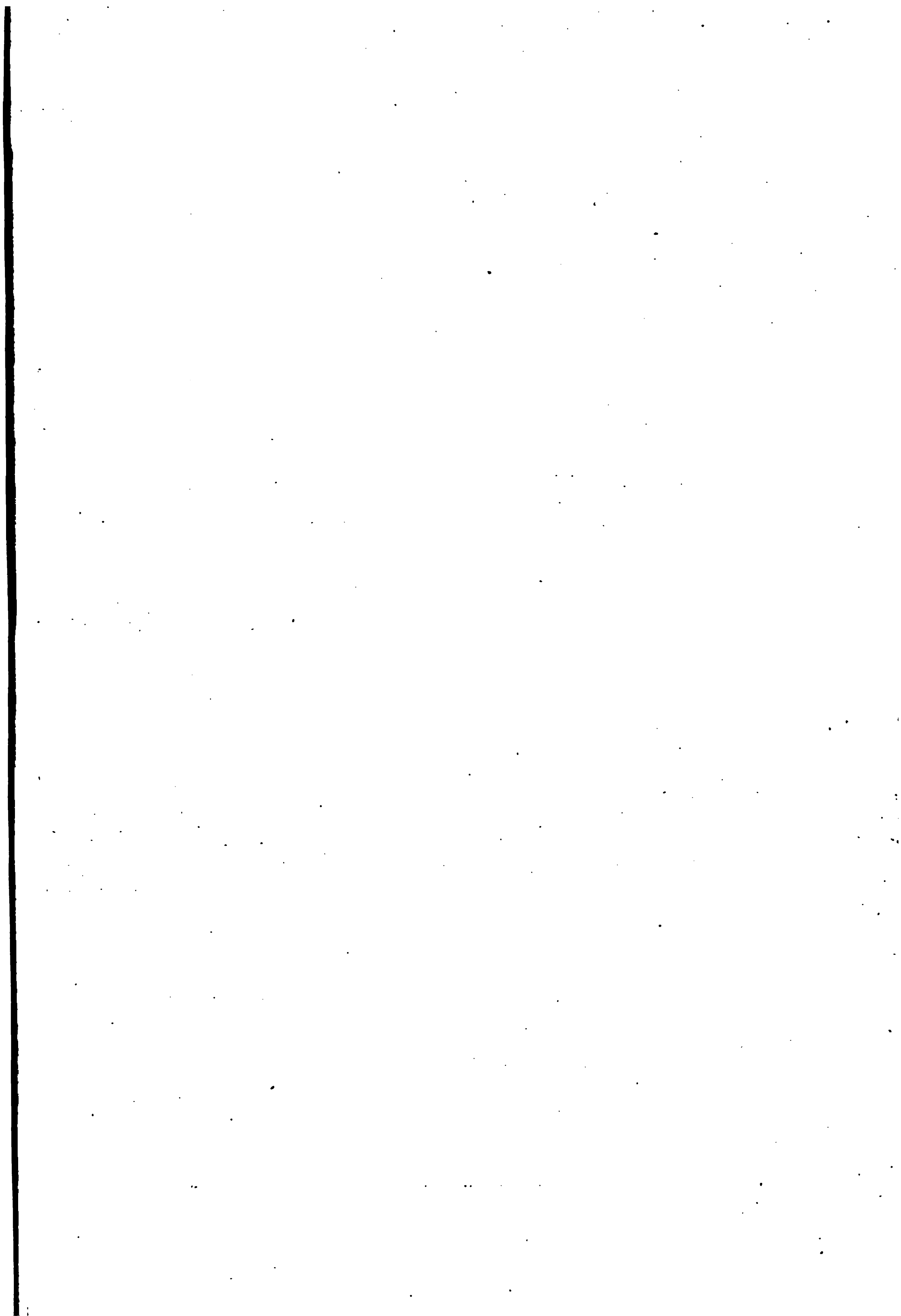


Herrmann's Zeigerwaage für Reisegepäck



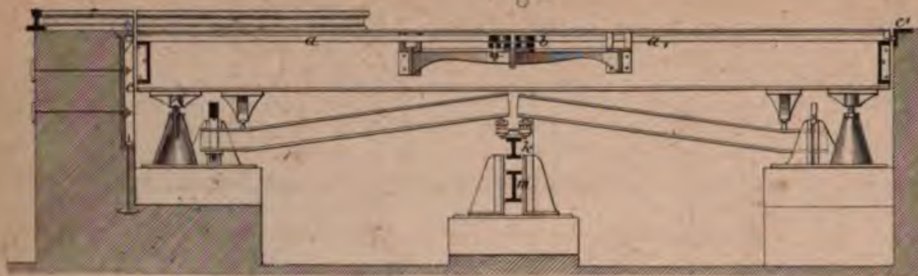
Krahnwaage. (Pellenz & Comp.)





Wägevorrichtungen für

Fig. 1.



1/30 d. nat. Gr.

Centesimal-Brückenwa
mit Balancirhebel-Entlas
von Gebrüder Dopp in



Fig. 2.

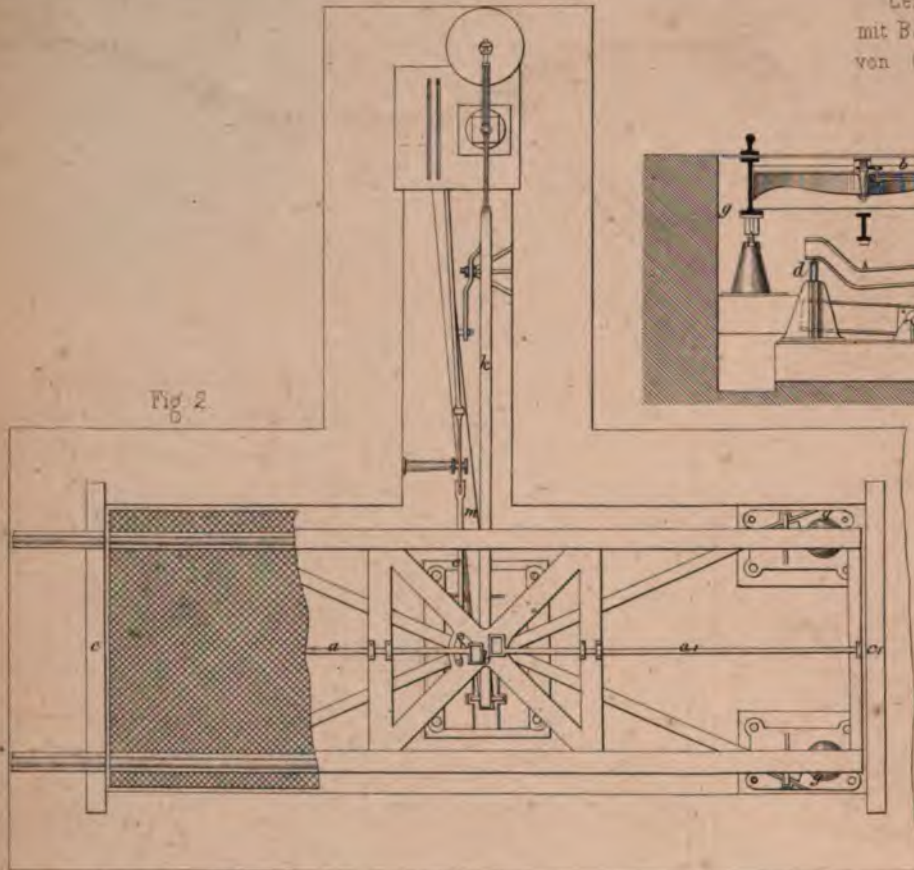


Fig. 8.

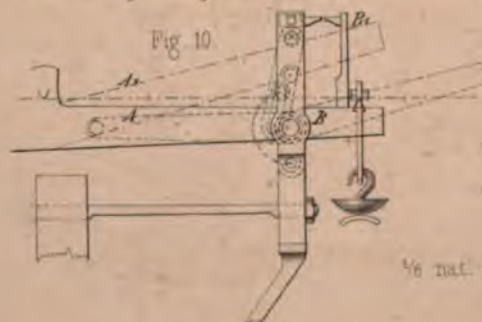


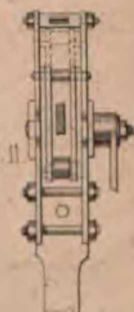
Winde-Entlastung von Bockhacker u. Dinse, Berlin.



1/32 nat. Gr.

Decimalwaage von Bockhacker u. Dinse in Berlin.
AB. mittl. Lage d. Waagbalkens, A'B' Lage im entlasteten Zustande.





1/6 nat. Gr.

Lith. Anst. v. F. Wirtz, Darmstadt.

üter & ganze Wagenladungen.

Taf. VII



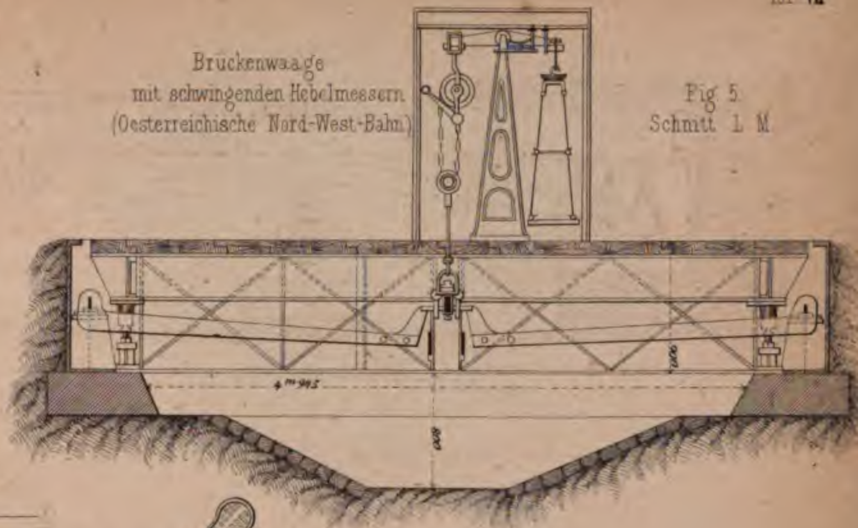
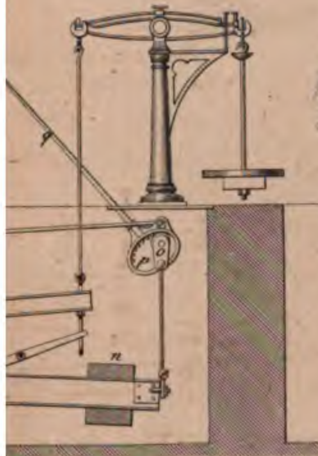
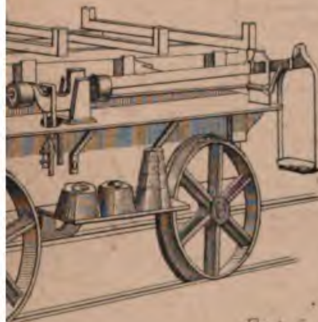
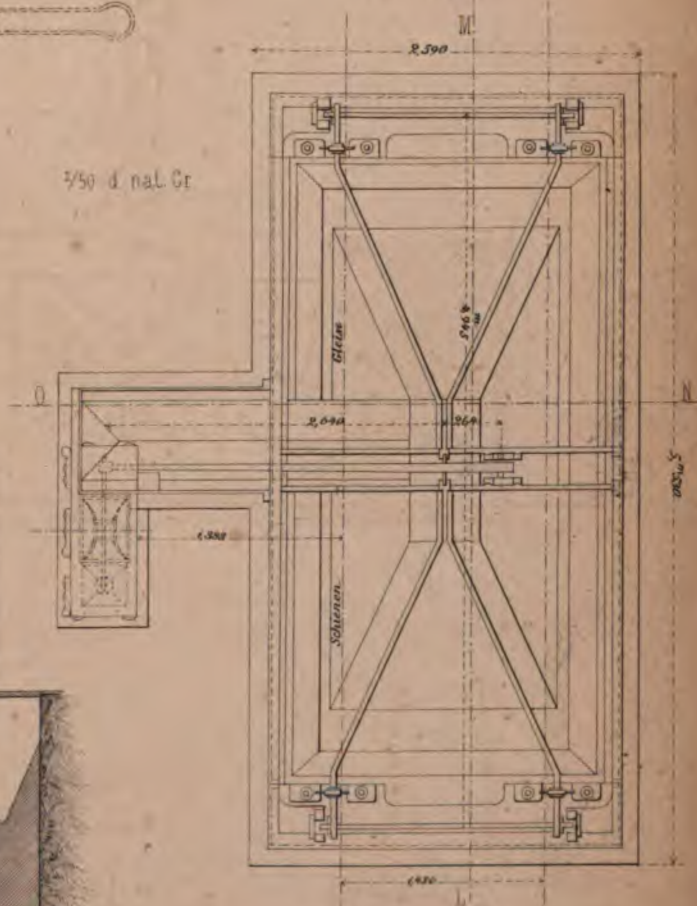


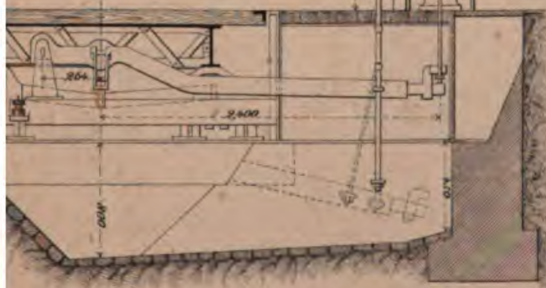
Fig. 3.



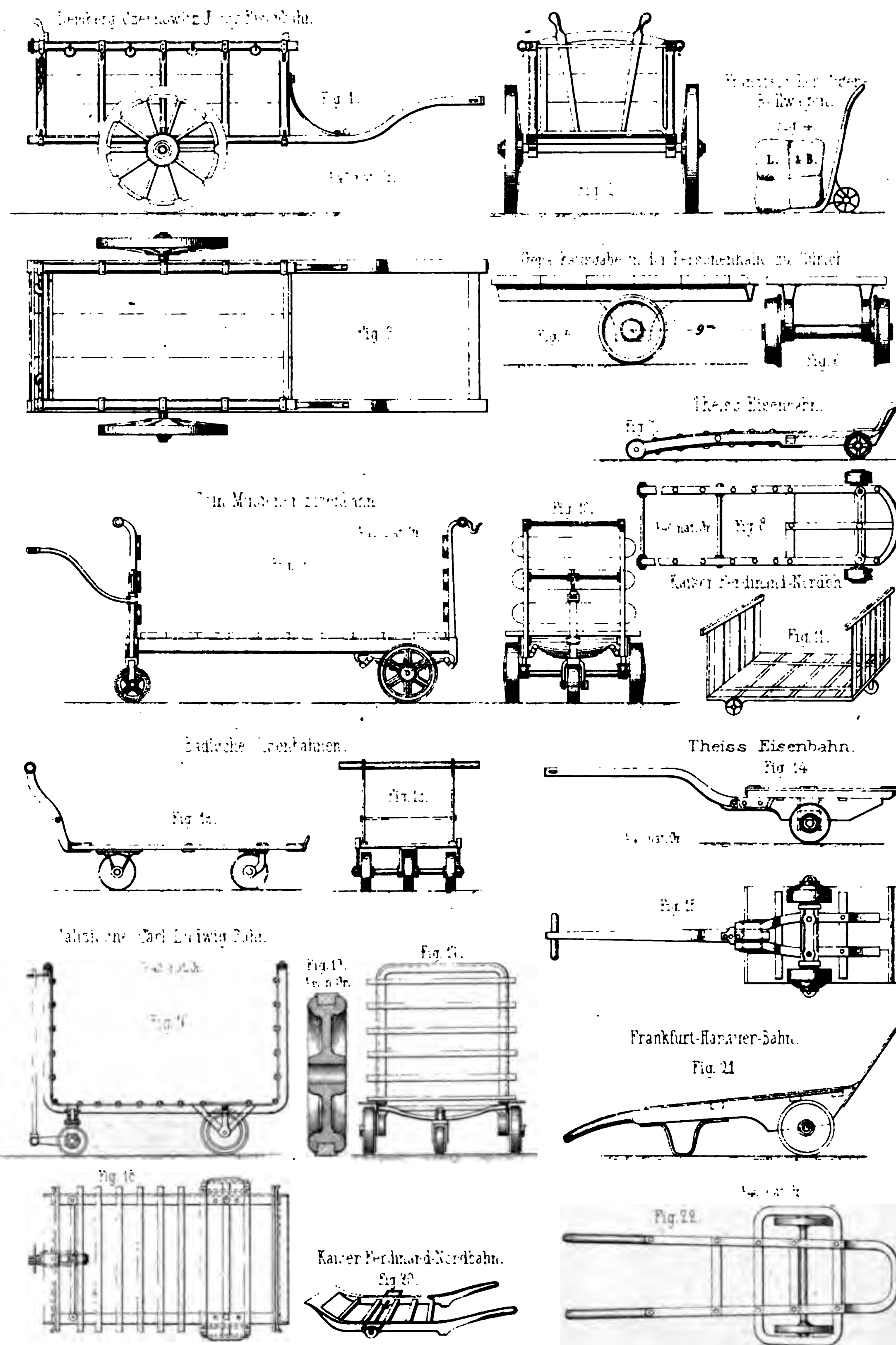
age-Wagen (Wagon-Bascule)
Usines de la Mulatière in Lyon.







Rollwagen für Gepäck & Güter.



Lith. Anst. v. F. Wirtz, Darmstadt.

Ausrüstung

Krigar's eiserne Regulíröfen

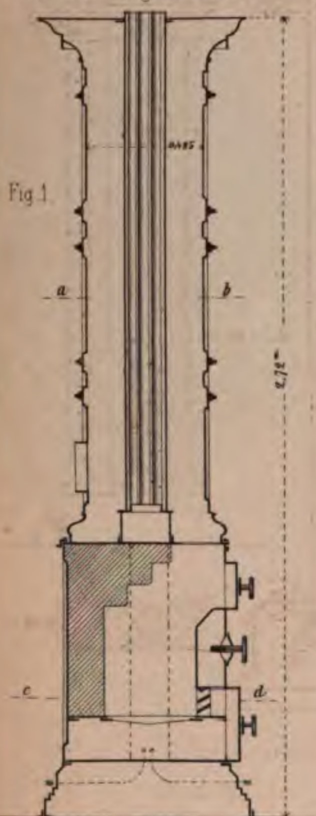




Fig. 2. Schnitt a b

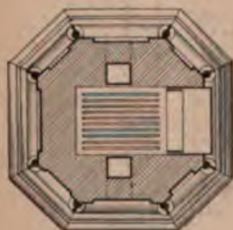


Fig. 3. Schnitt c d

1/25 n. Gr.

Heizapparat für Warmluftheizung M. 1/60 n.

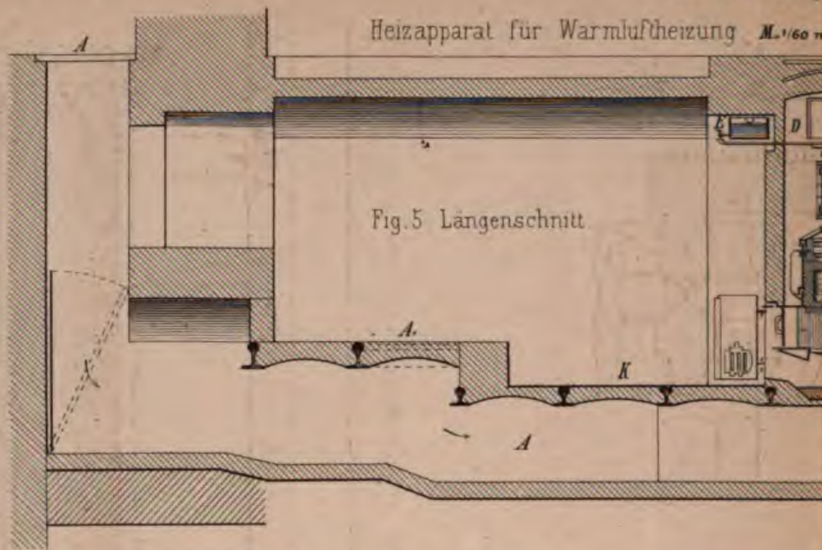


Fig. 5. Längenschnitt.

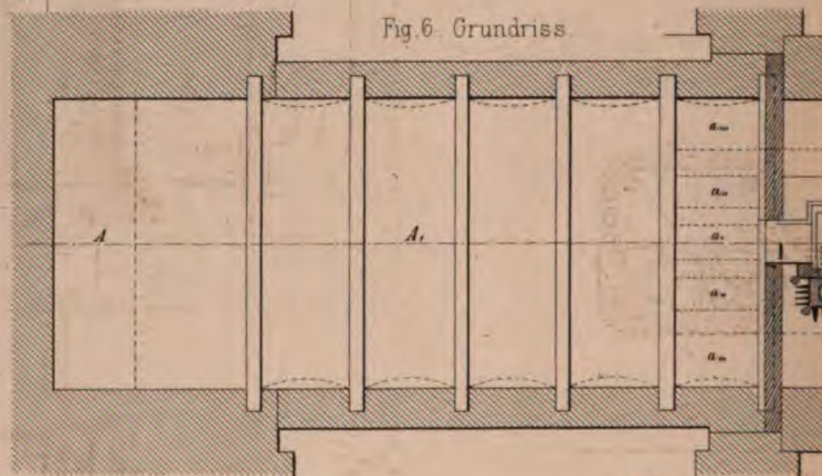


Fig. 6. Grundriss.

Electrische Uhren auf Bahnhof Stuttgart.

Fig. 9. Laufwerk mit Gewicht zum Aufziehen d. Regulator.
Fig. 10-13. Bestandtheile d. Contactwerkes.
Fig. 14-16. Einrichtung d. abhängigen Uhren.

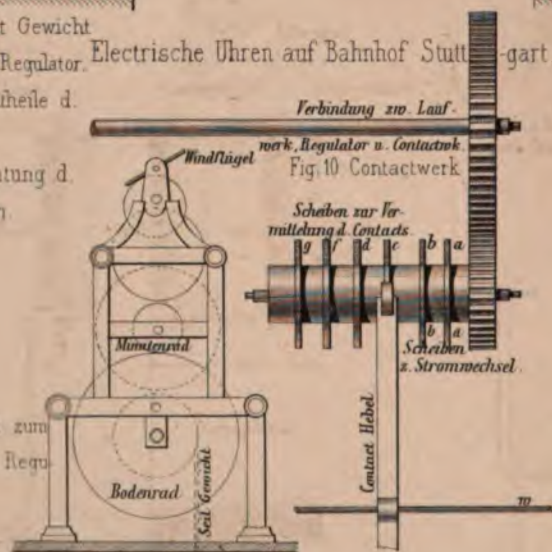


Fig. 9. Laufwerk zum Aufziehen des Regulators.

Grund

Fig. 12.

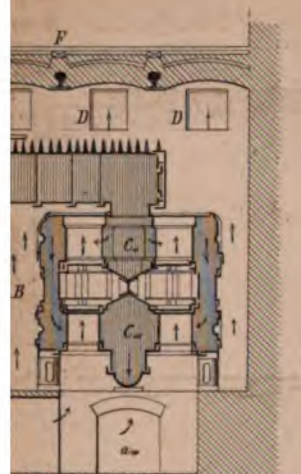
Scheiben

Fig. 13.

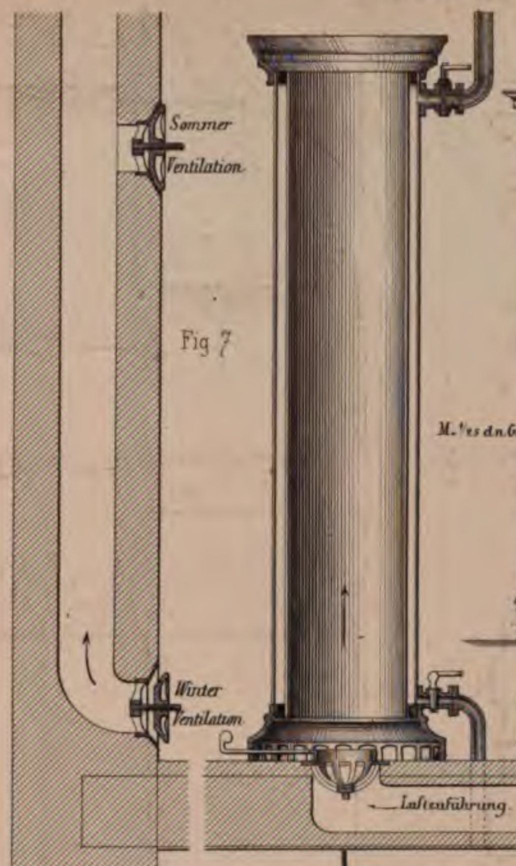
in ihrer ge

ationsgebäude.

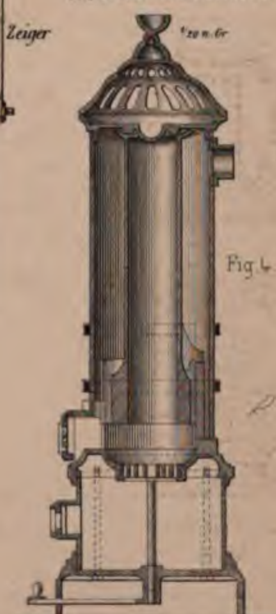
Saulenofen Röhrenofen
für Warmwasserheizung

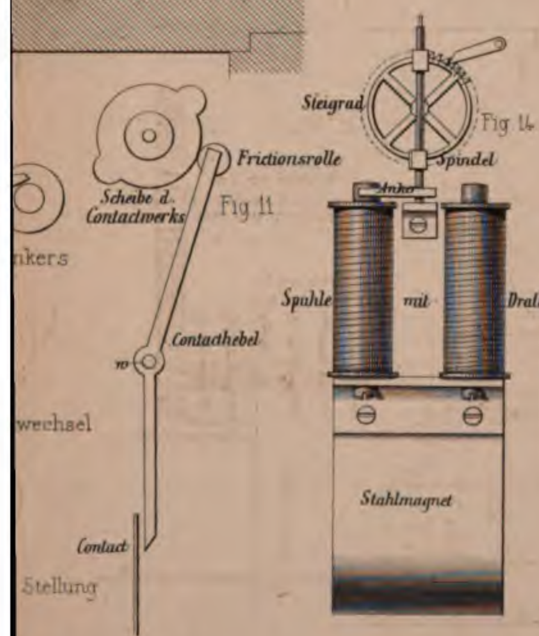


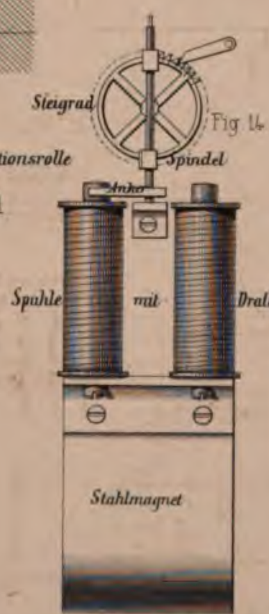


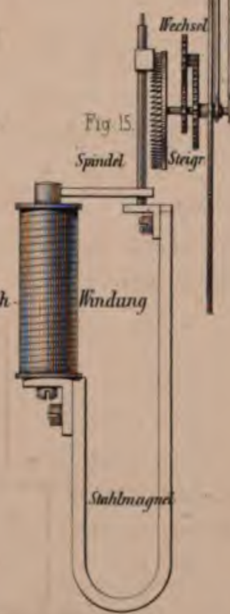


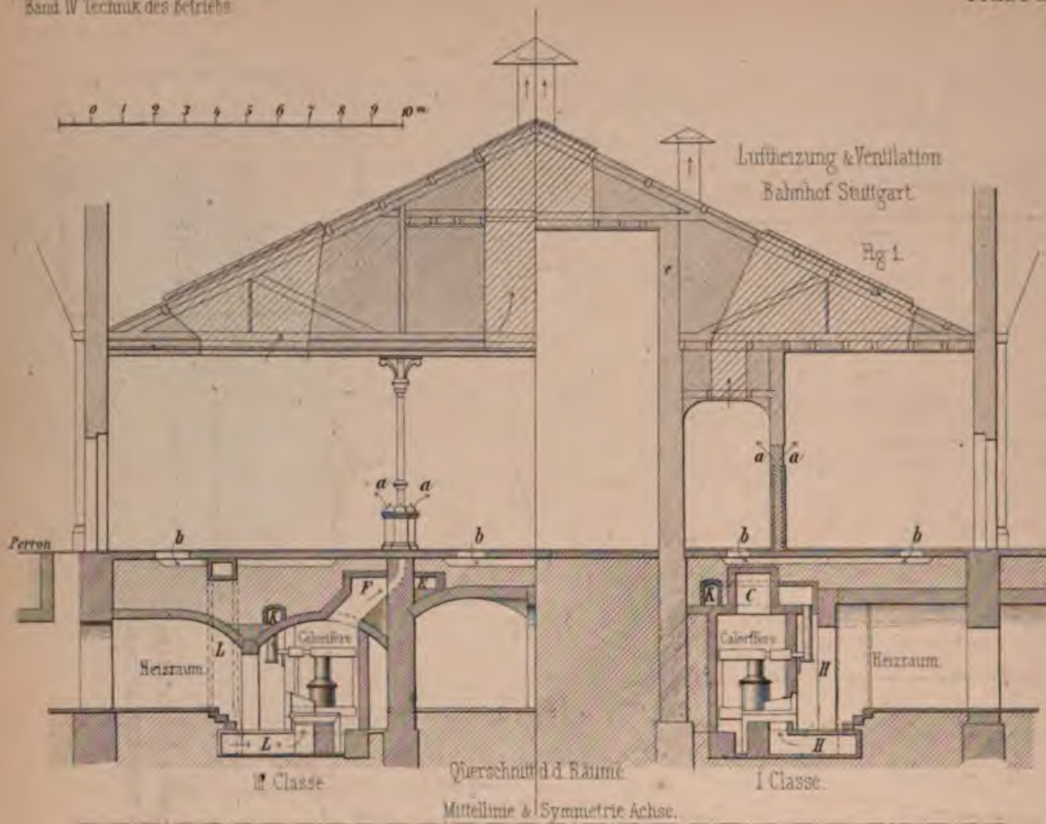
Rosenthals
eiserner Schuttofen.

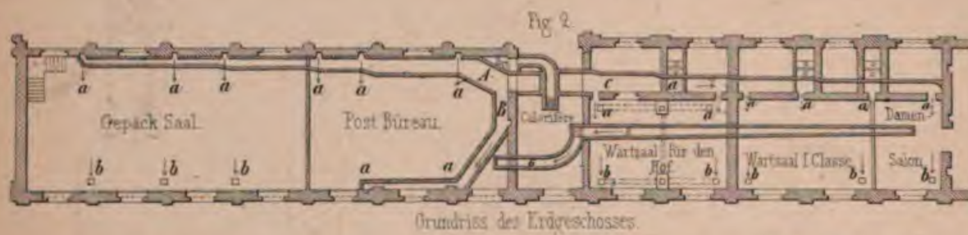












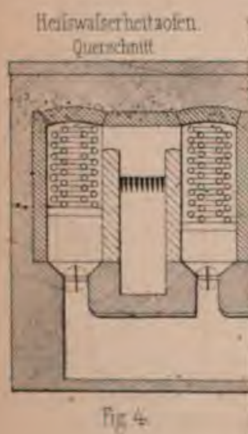


Fig 4.

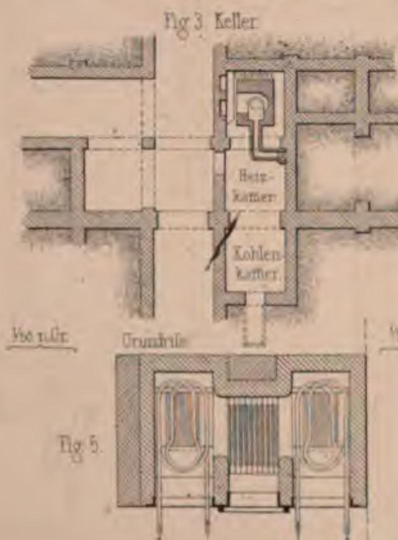


Fig 5.

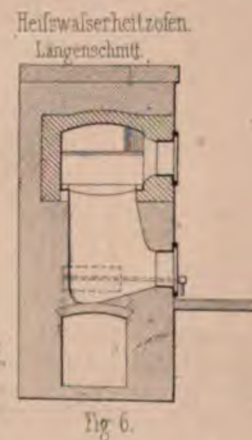


Fig 6.

Lith. Anst. v. F. Wirtz, Darmstadt.

Abortsanlage Bahnhof der Niederschlesisch-Märkischen-Eisenbahn zu Berlin.

Fig. 7. Grundriſs.

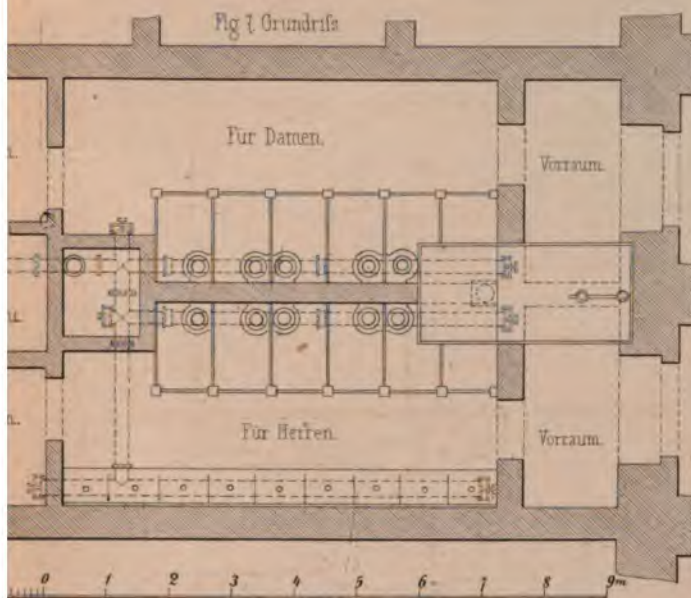
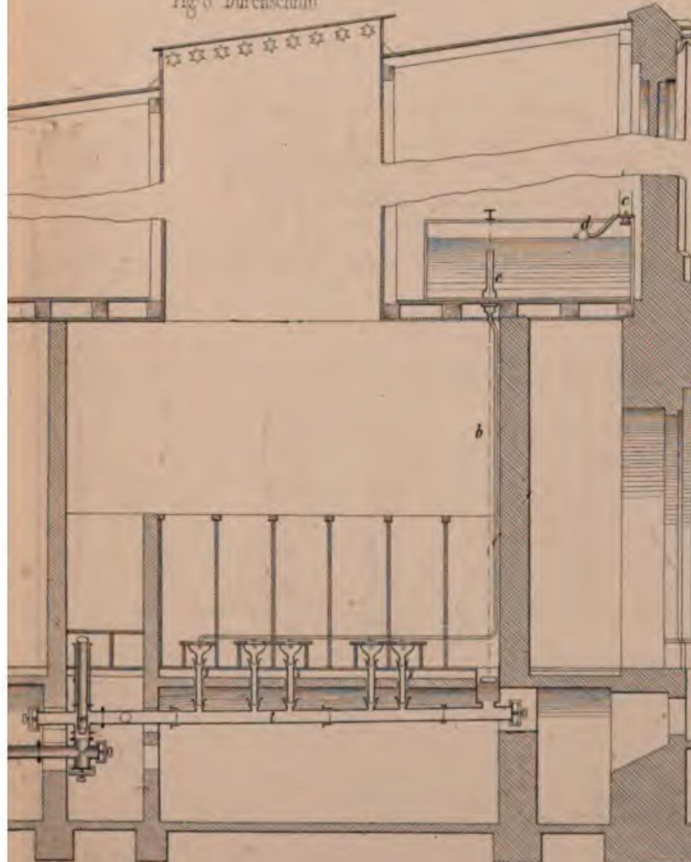


Fig. 8. Durchschnitt.



Details der Spül-Vorrichtung.

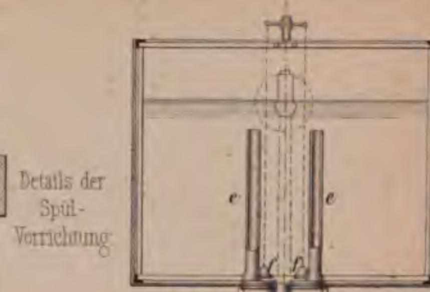


Fig. 10.

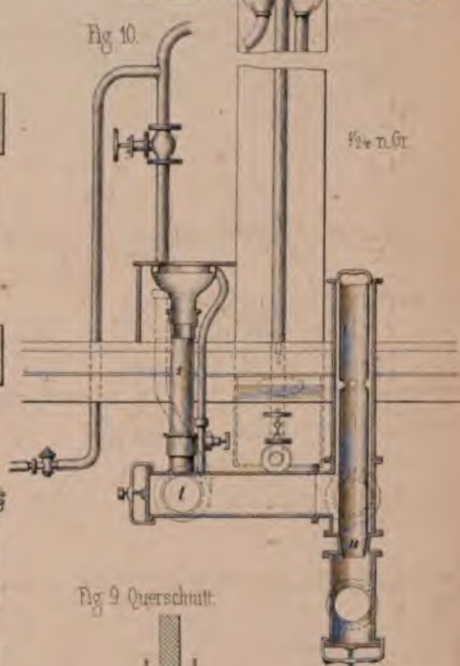
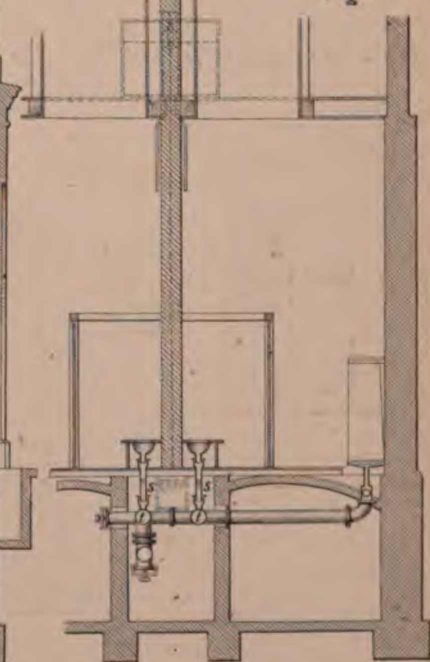
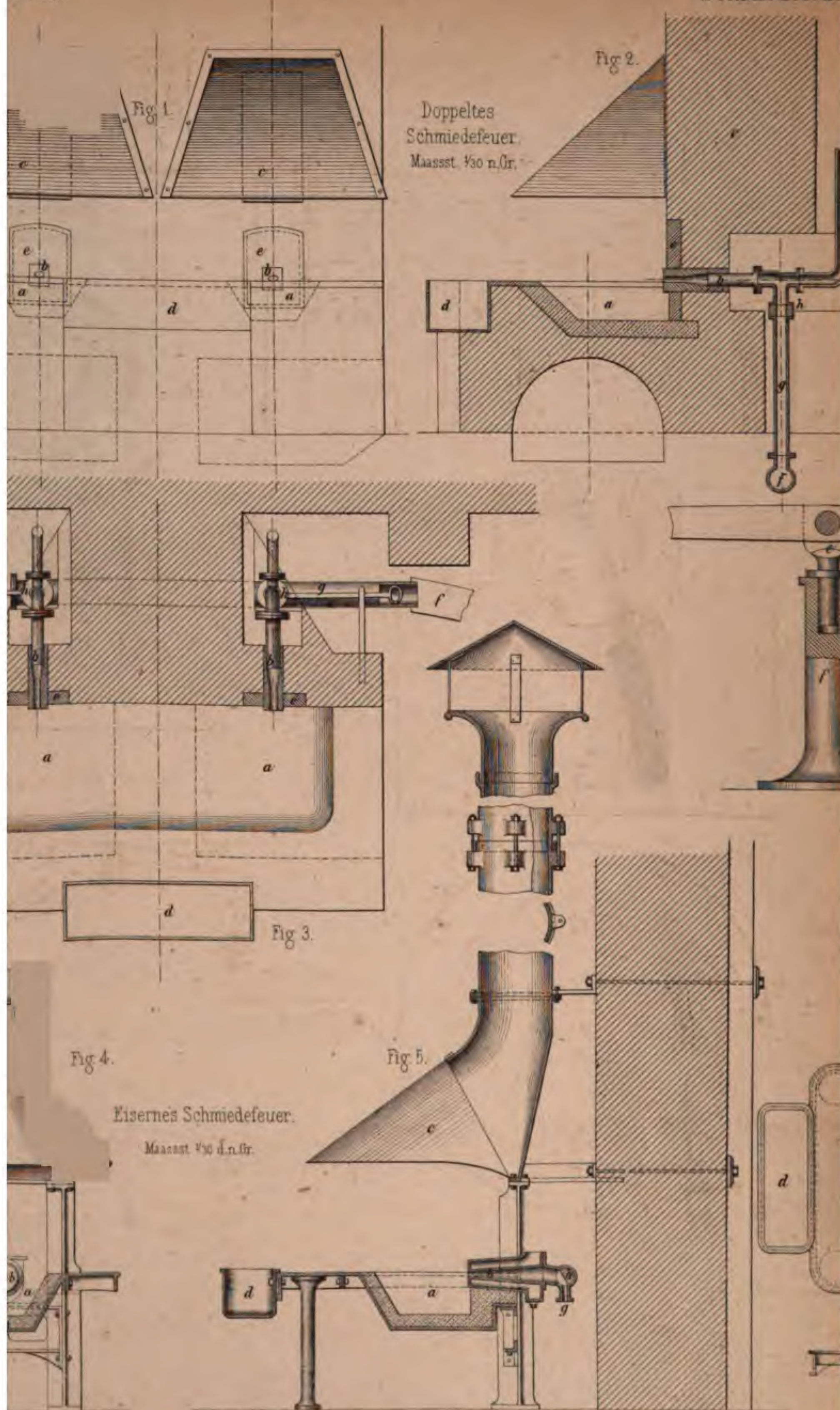
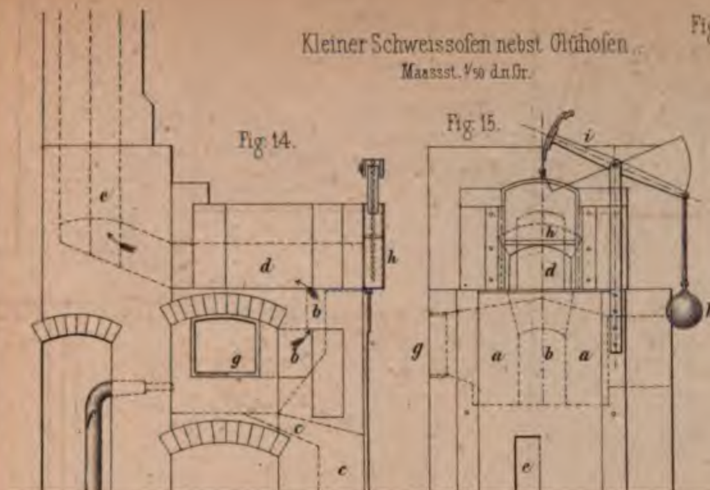


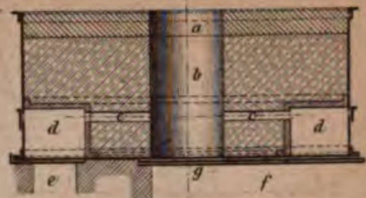
Fig. 9. Querschnitt.




Betriebs.
Schmiedefeue
Fig. 1.
Fig. 2.
Doppeltes
Schmiedefeuer.
Maassst. 1/30 n. Gr.
Fig. 3.
Fig. 4.
Fig. 5.
Eisernes Schmiedefeuer.
Maassst. 1/30 d. n. Gr.
armstadt.

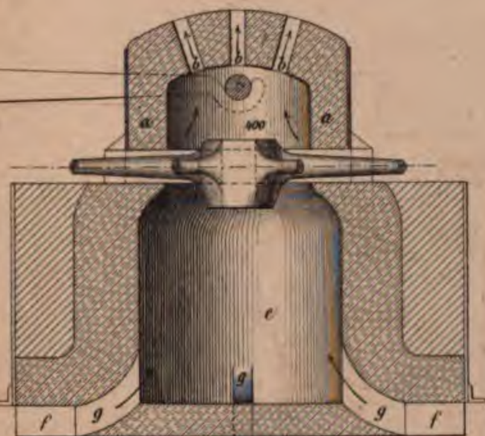
Kleiner Schweissofen nebst Glühofen.
Maassst. 1/30 d.n.Gr.





Rundfeuer. (für Coke.)







Rundfeuer zur Benutzung für Schmiedekohlen.

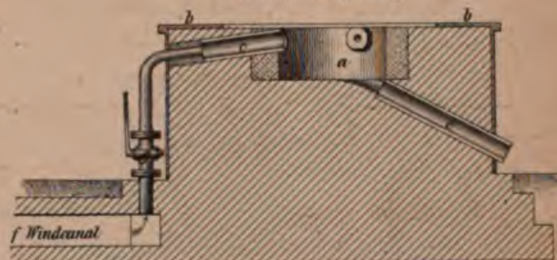
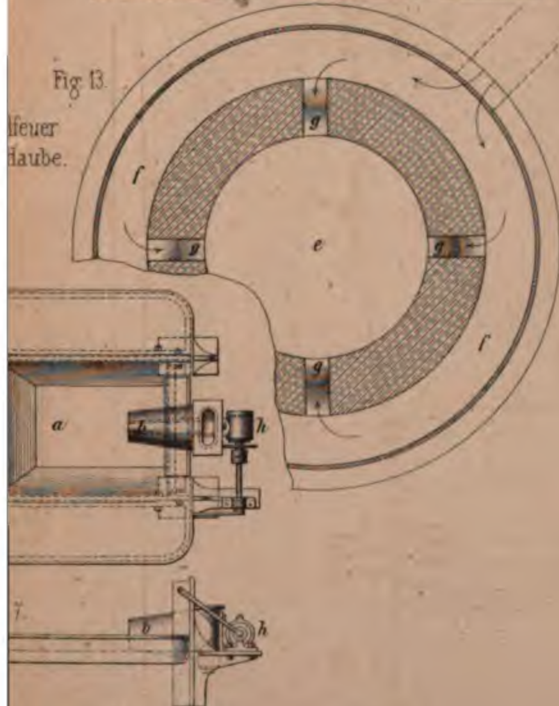


Fig. 13.

lfeuer
Haube.



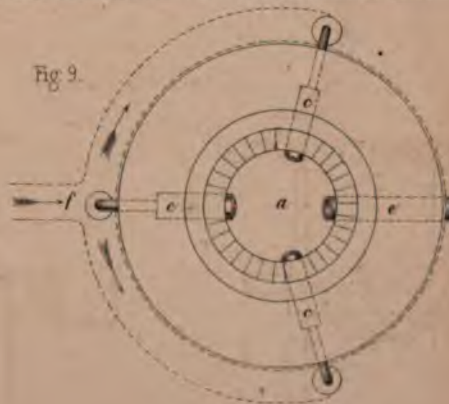
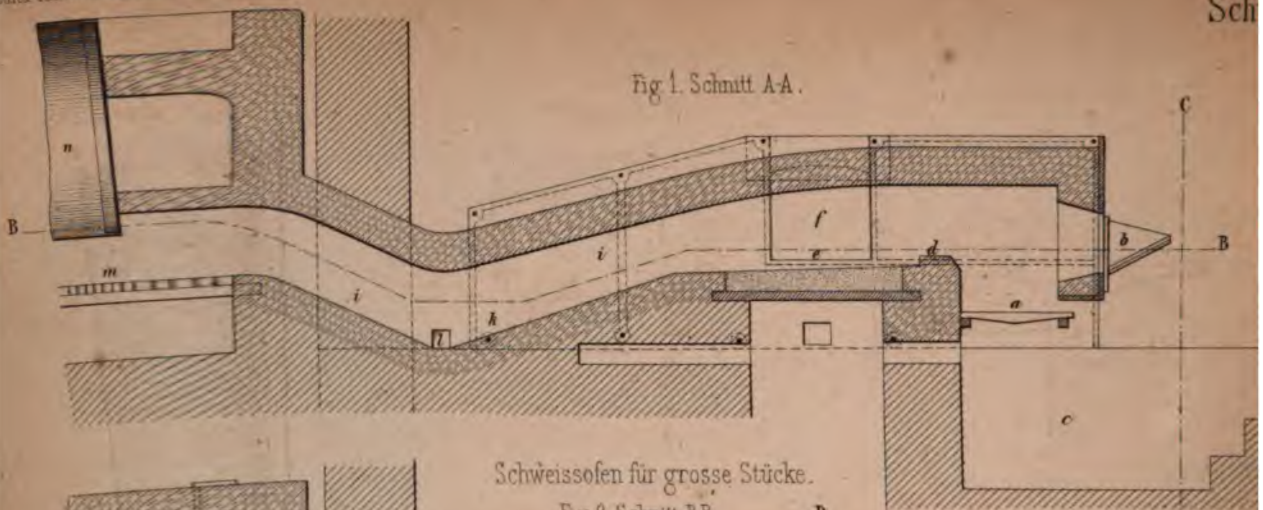


Fig. 1. Schnitt A-A.



Schweissofen für grosse Stücke.

Fig. 2. Schnitt B-B.

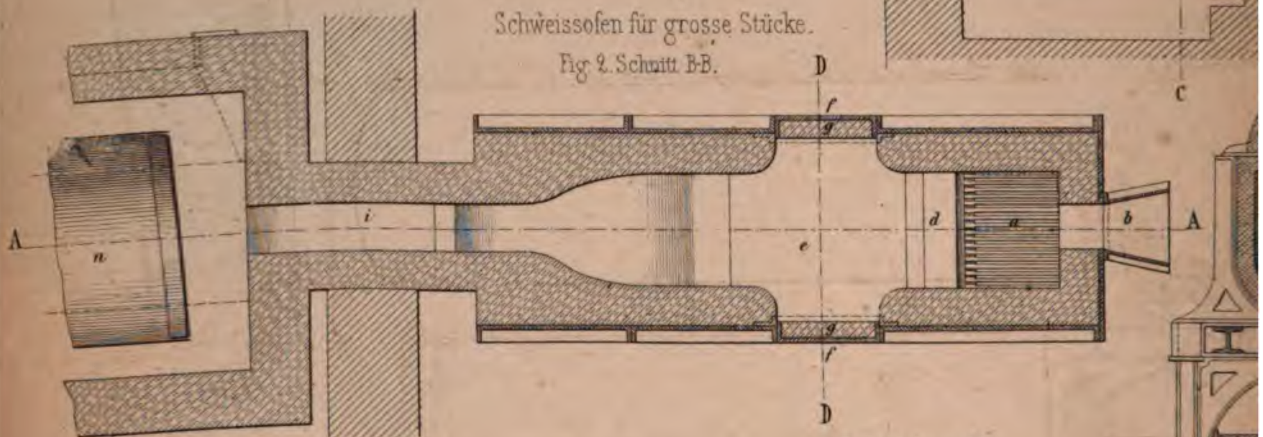


Fig. 5. Schnitt A-A.

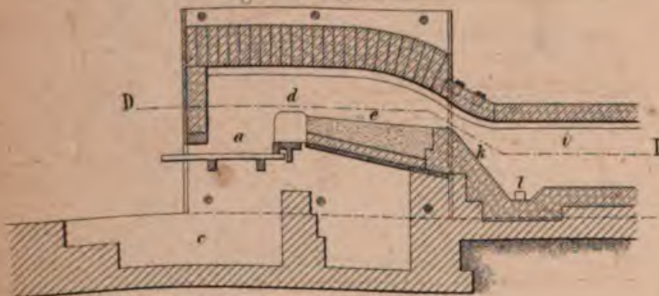


Fig. 7. Schnitt C-C.

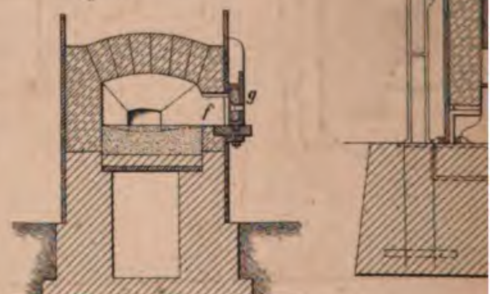


Fig. 6. Schnitt D-D. Kleiner Schweissofen.

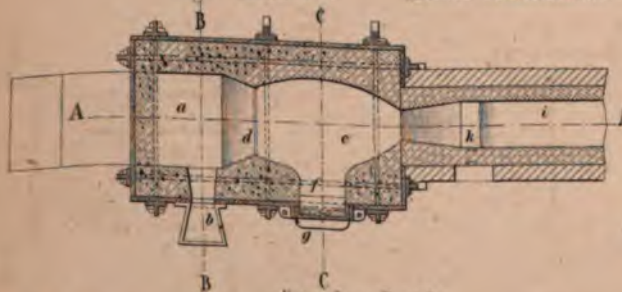


Fig. 8. Schnitt B-B.

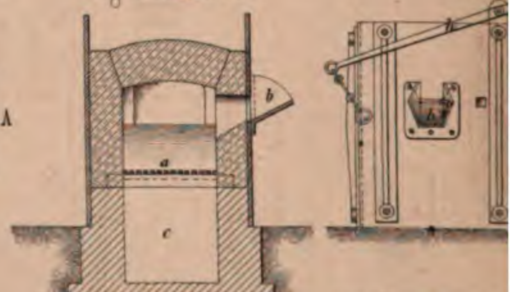


Fig. 9



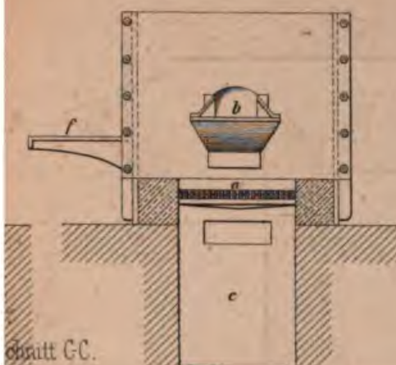
1/50 n. Gr. zu Fig. 1-9

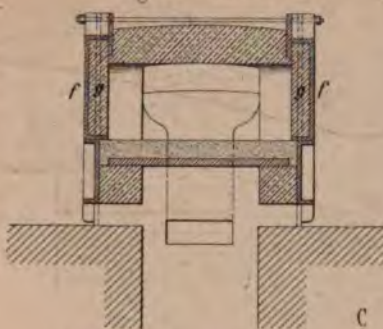
100 80 60 40 20 0 100 200 300 400 500 Centimeter

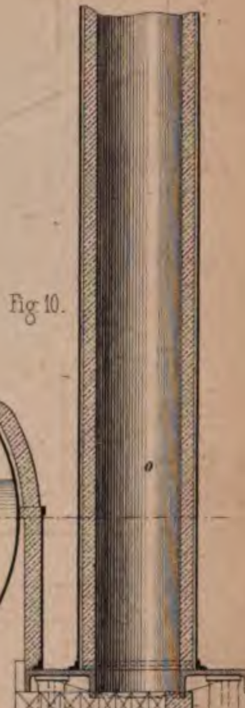
1/64 n. Gr. zu Fig. 10-12.

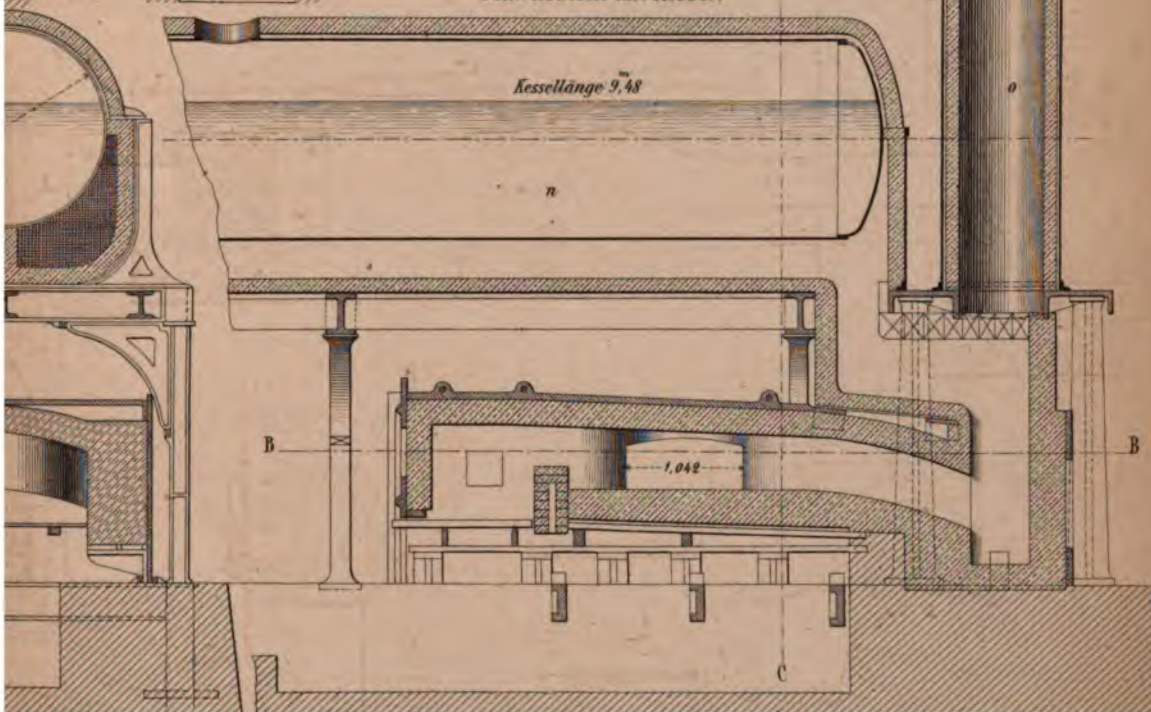
1000 500 0 1 2 3 4 5 6 7 Meter.

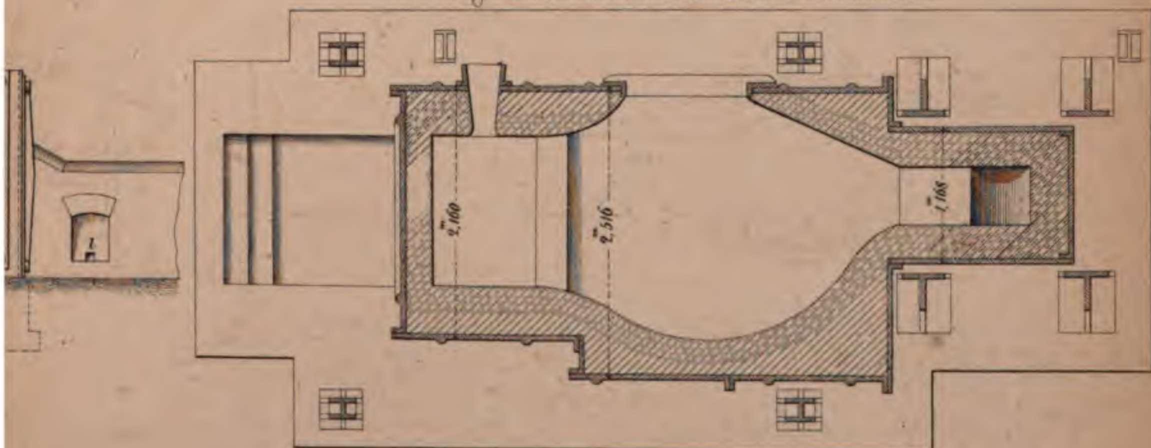
Lith. Anst. v. F. Wirtz, Darmstadt.

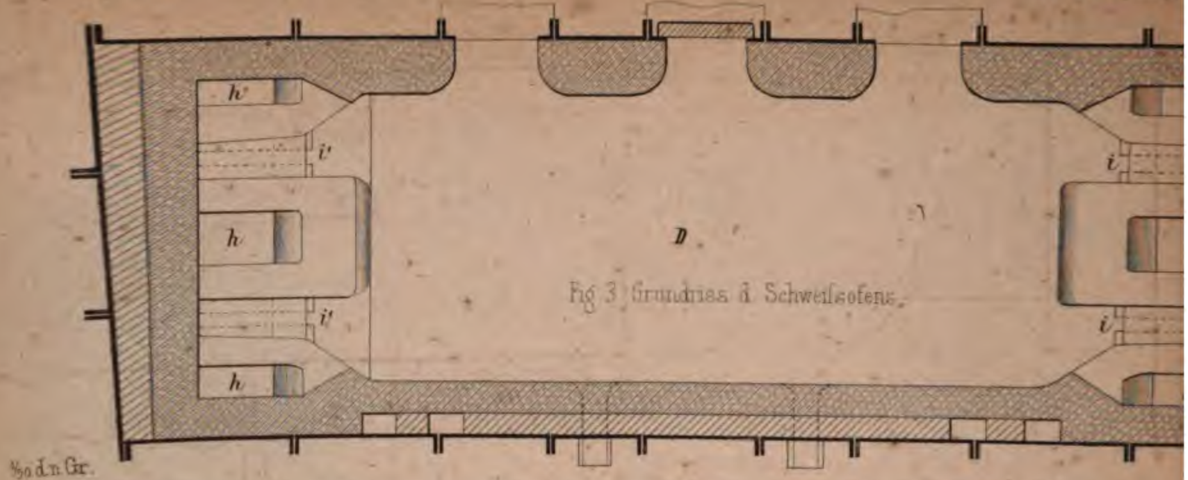

Fig 3. Schnitt G.C.
f
b
a
c


Fig 4. Schnitt D.D.
f
g
g
f

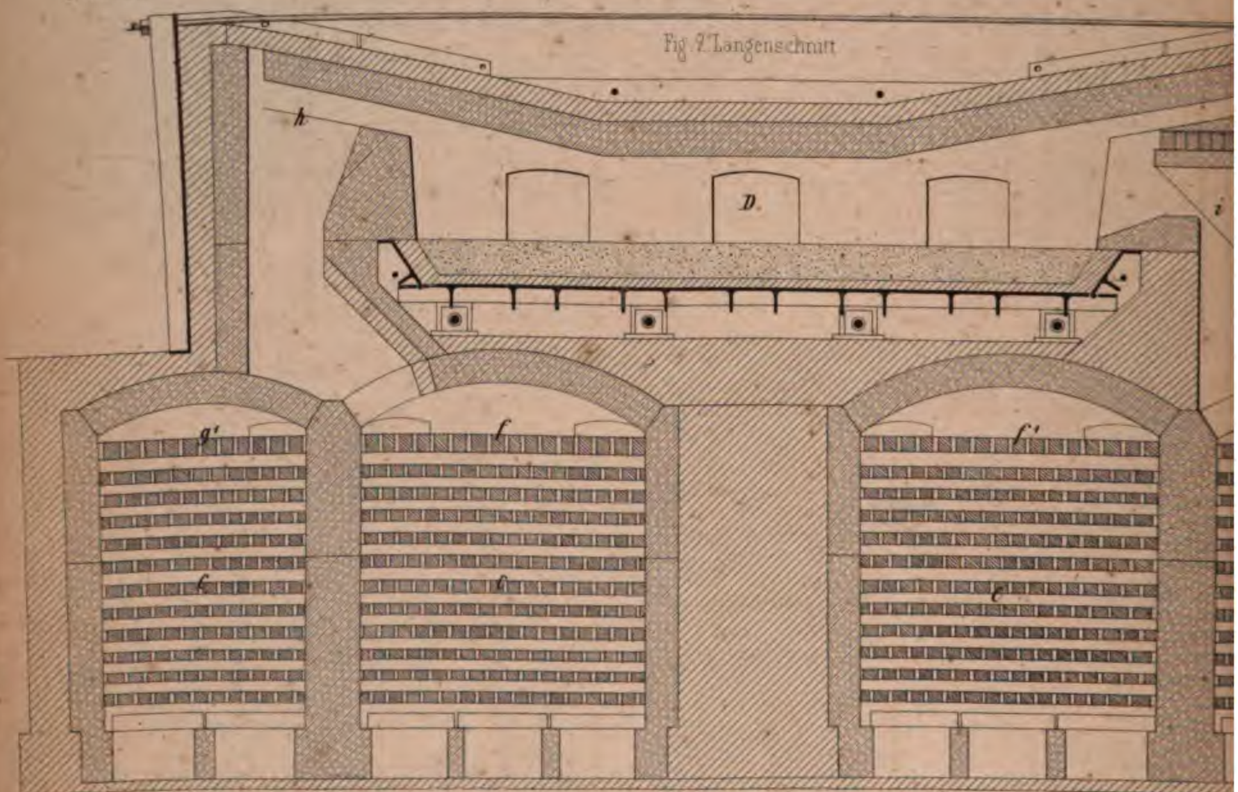

Fig 10.
o


Schnitt G.C.
Schweissofen mit Kessel.
C
Kessellänge 9,48
n
B
1,042
B
C


Fig 12. Grundriss und Schnitt nach B-B des Aufrisses.
2,160
2,516
1,168



1/50 d. n. Gr.

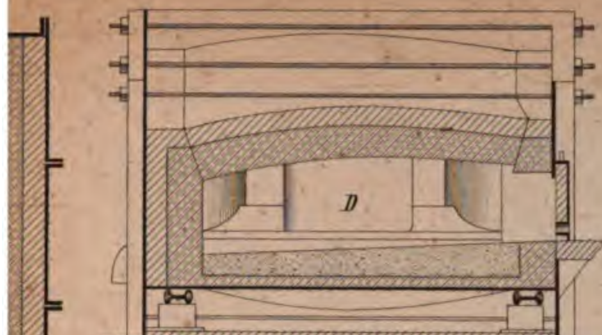


Glühofen für lange Stäbe





Lith. Anst. F. Wirtz, Darmstadt



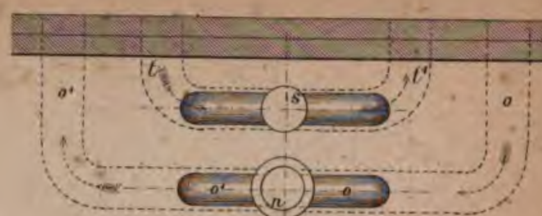


Fig. 9. ¹⁄₁₀₀ d. nat. Gr.

Fig. 1. Querschnitt.

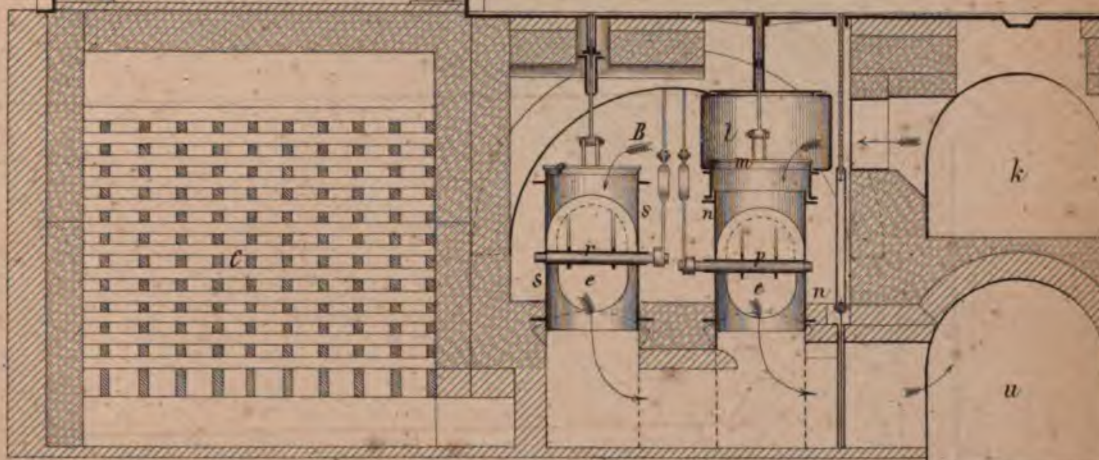
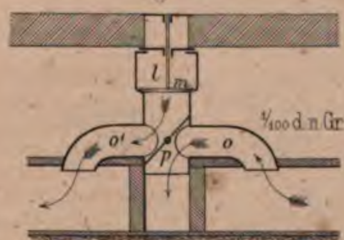


Fig. 10.

Schweissofen mit Siemens Regenerator-Gasöfen.



Ofen zur Erzeugung d. Gase.

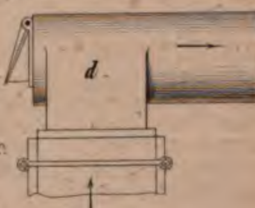
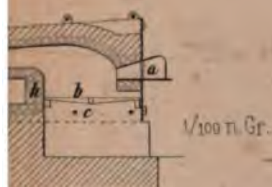


Fig. 4.

Fig. 7. Hinteransicht.



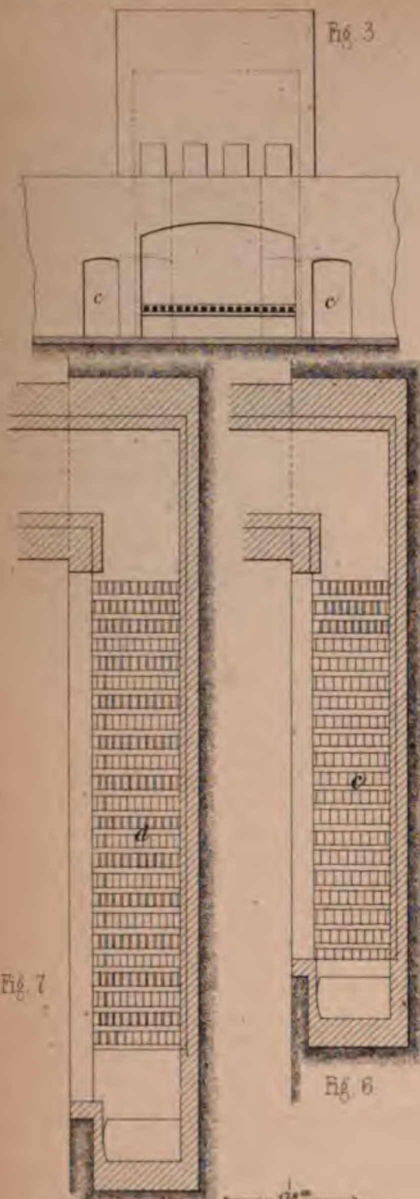
Fig. 6. Vorderansicht.

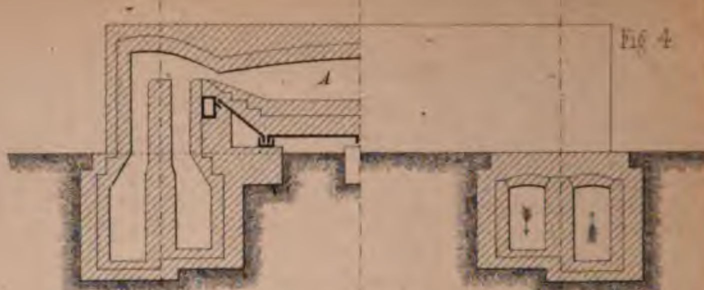




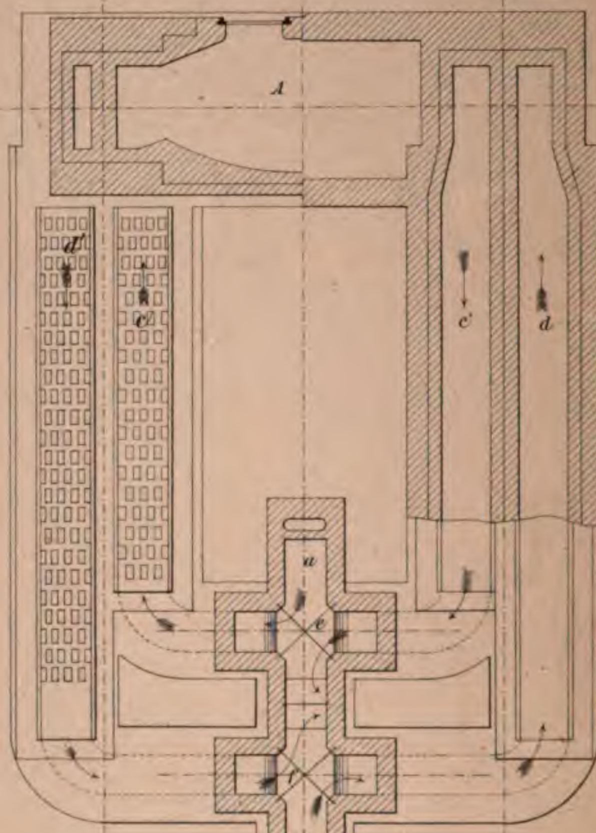
3 4 5 Meter.

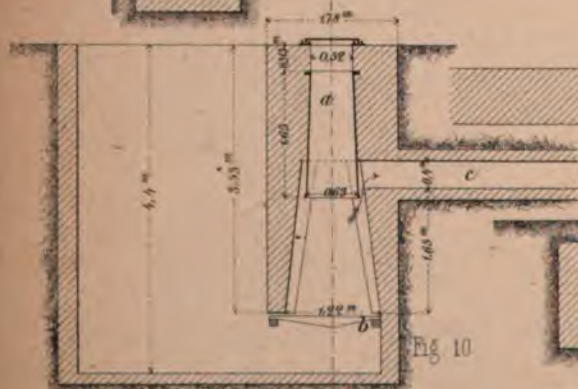
Gasöfen und



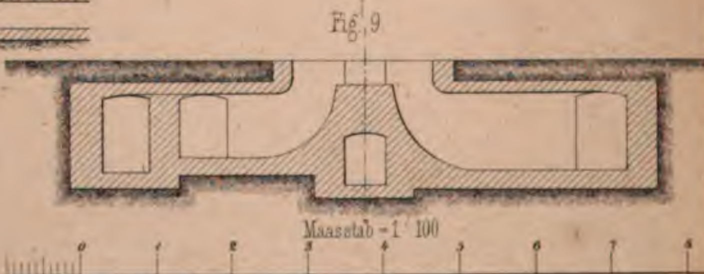


Siemens' Regeneratorofen auf dem Blechwalzwerk zu Riesa.

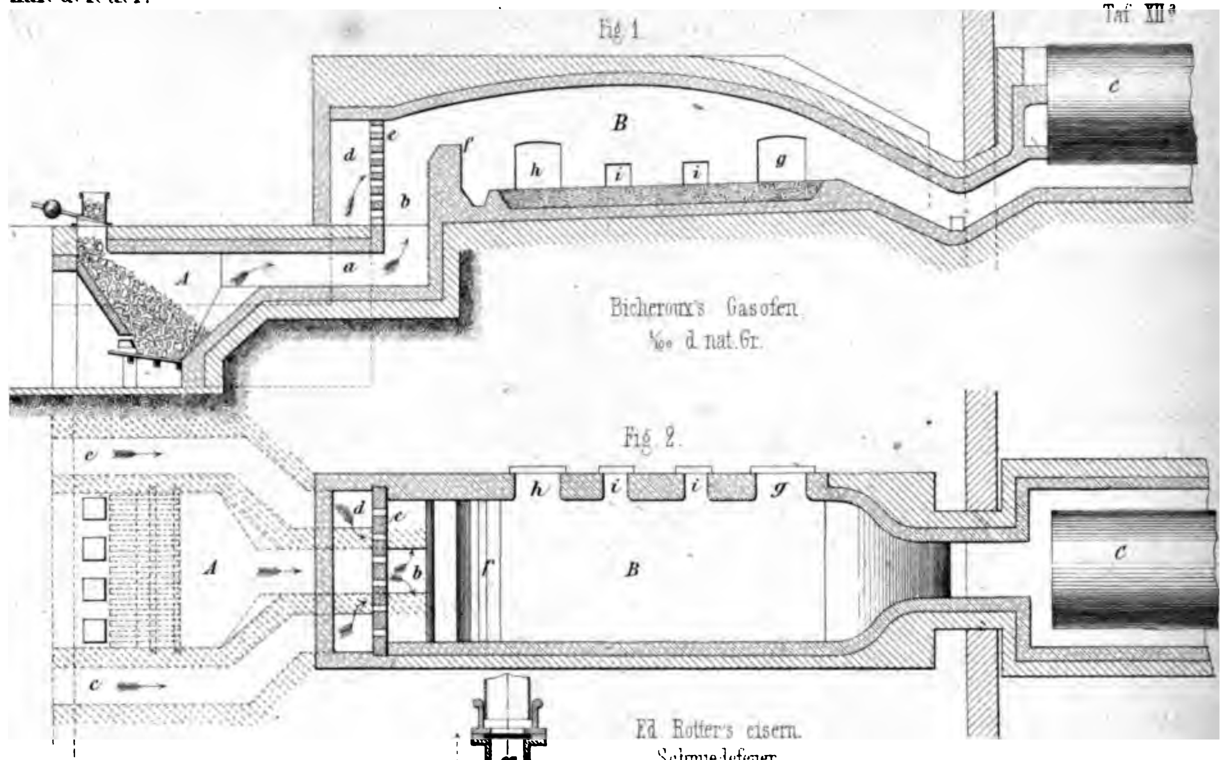




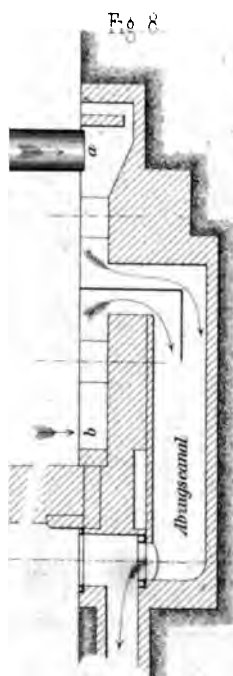
Generator für Torfbrand.

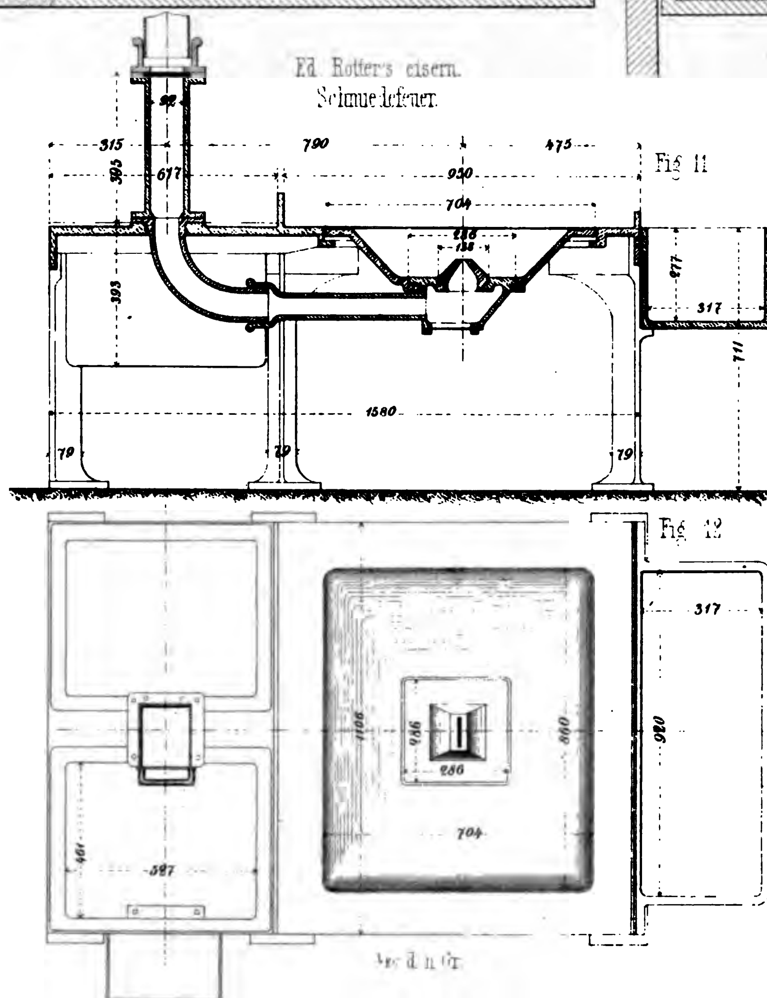


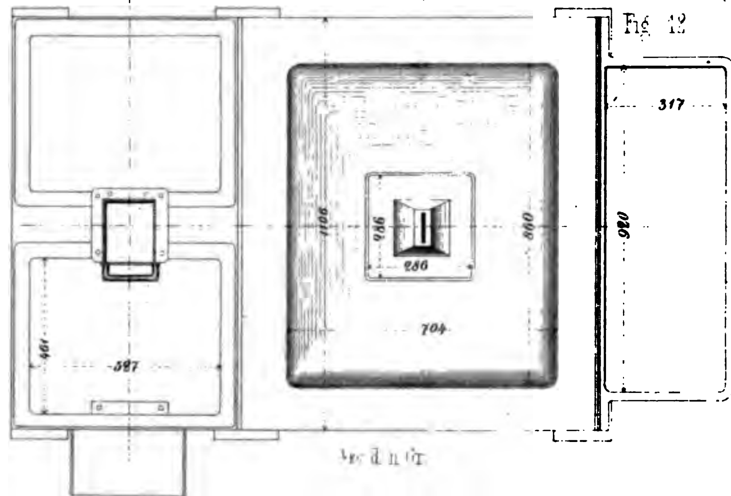
Lith. Anst. v. F. Wirtz Darmstadt.

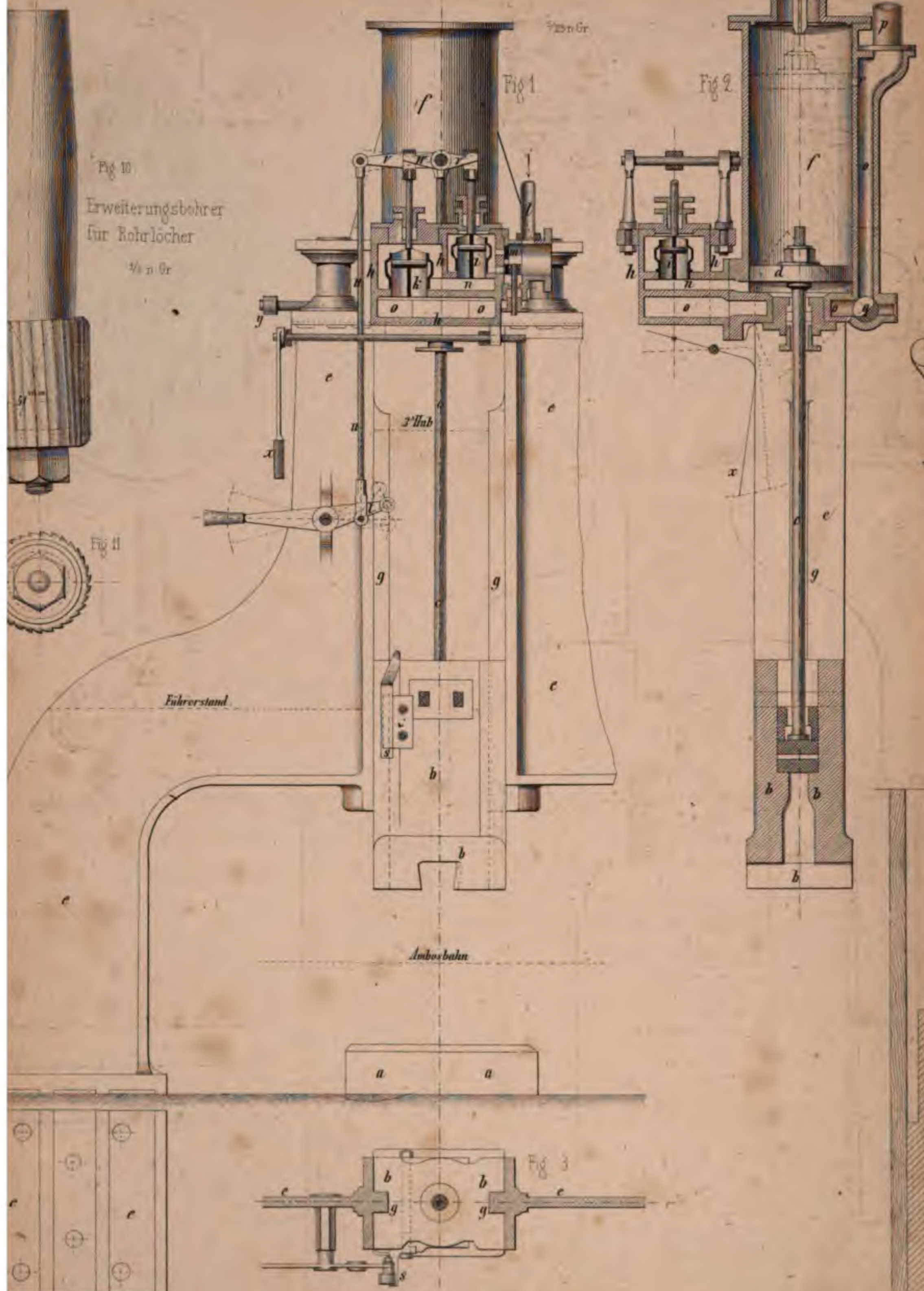


Ed. Rotter's eisern. Schmiedefeuer.

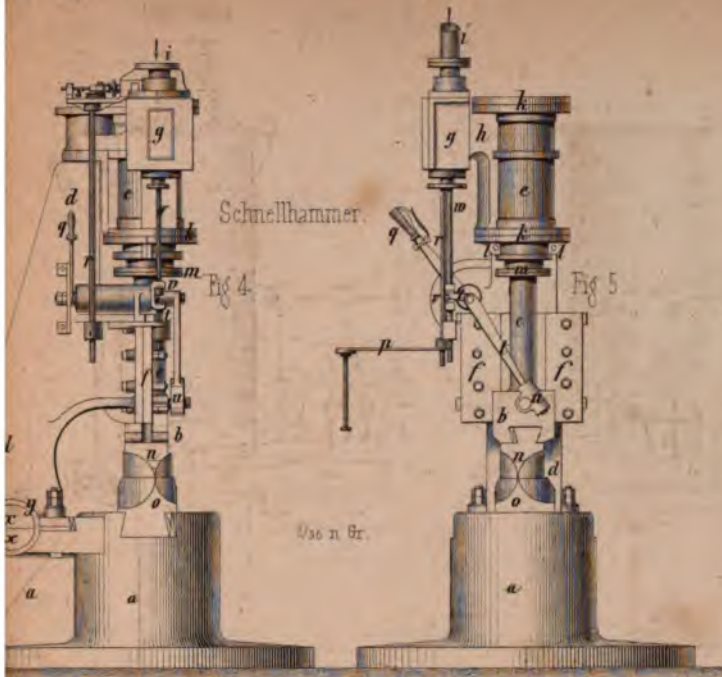


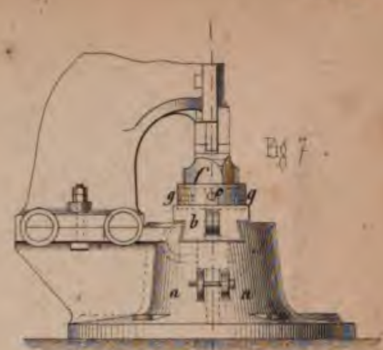




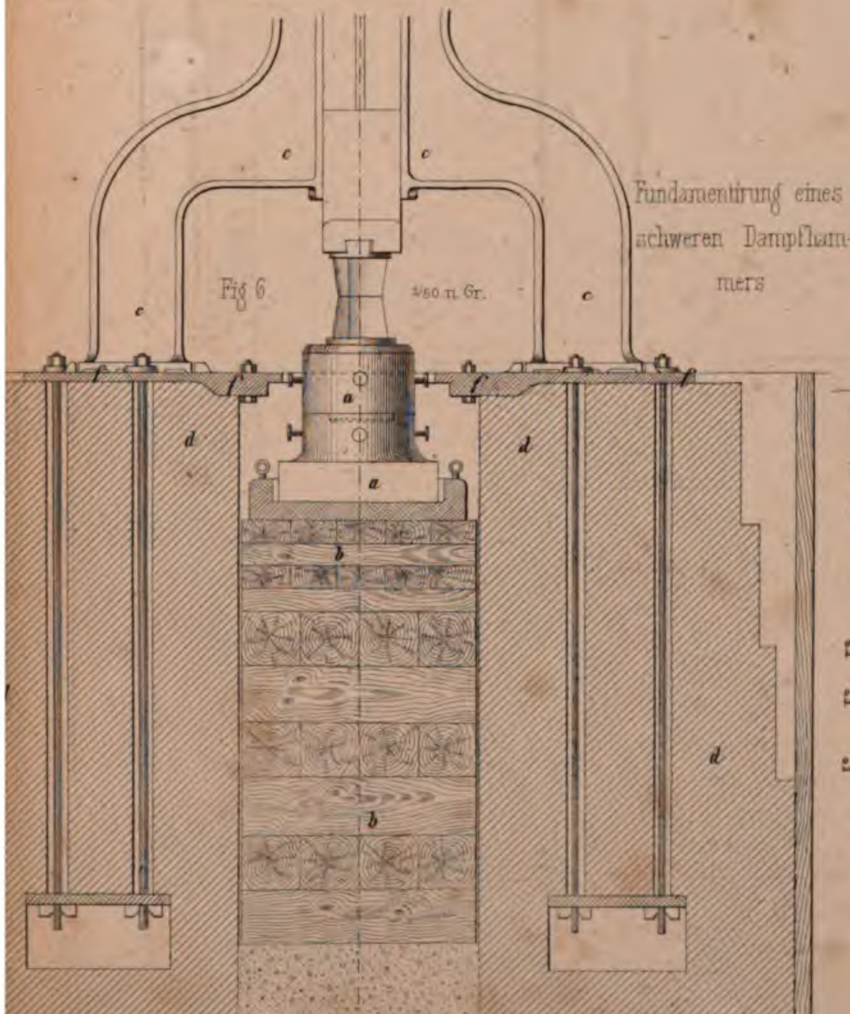


Lith Anst v F Wirtz Darmstadt

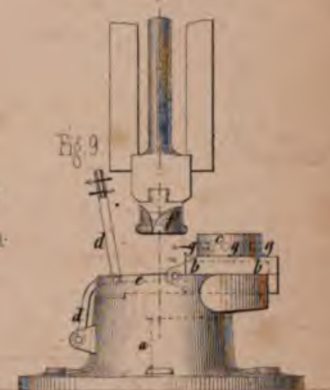




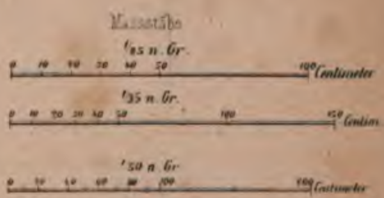




Fundamentirung eines schweren Dampfhammers



Vorrichtung an einem Dampfhammer zum Schmieden u. Anschweifsen von Bufferscheiben etc.



Sc

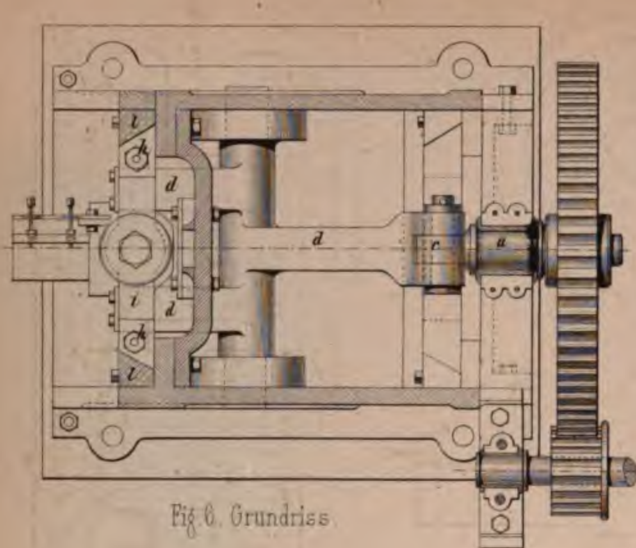


Fig. 6. Grundriss

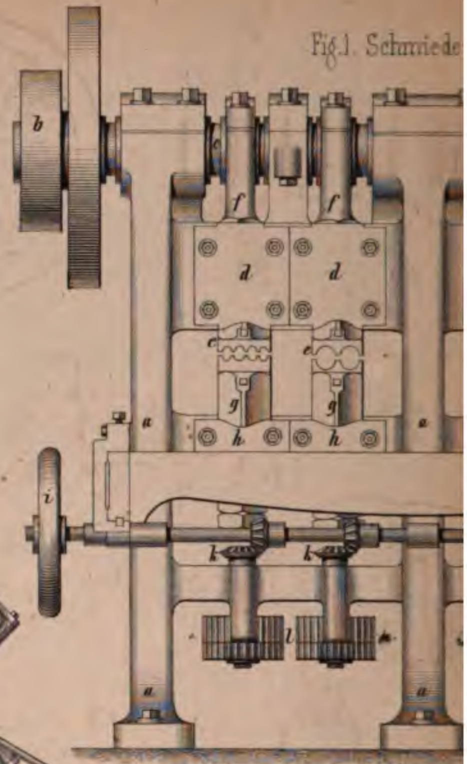


Fig. 1. Schmiede

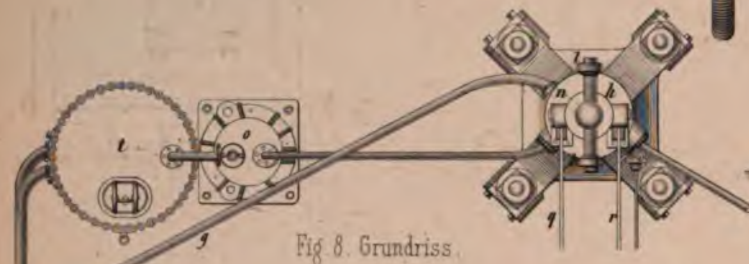
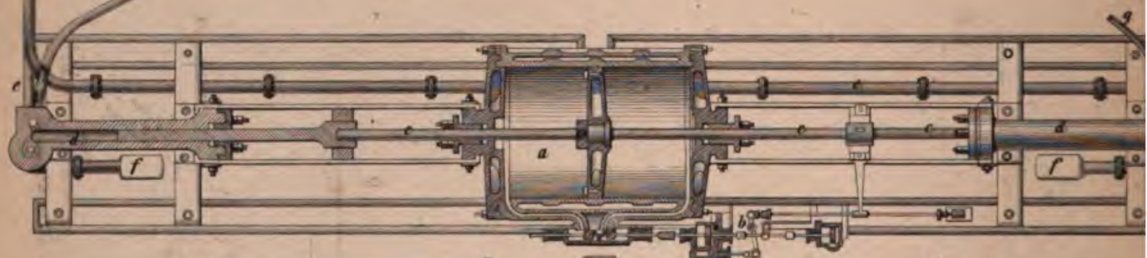


Fig. 8. Grundriss.



Schmiede-Presse.
(nach System Haswell.)

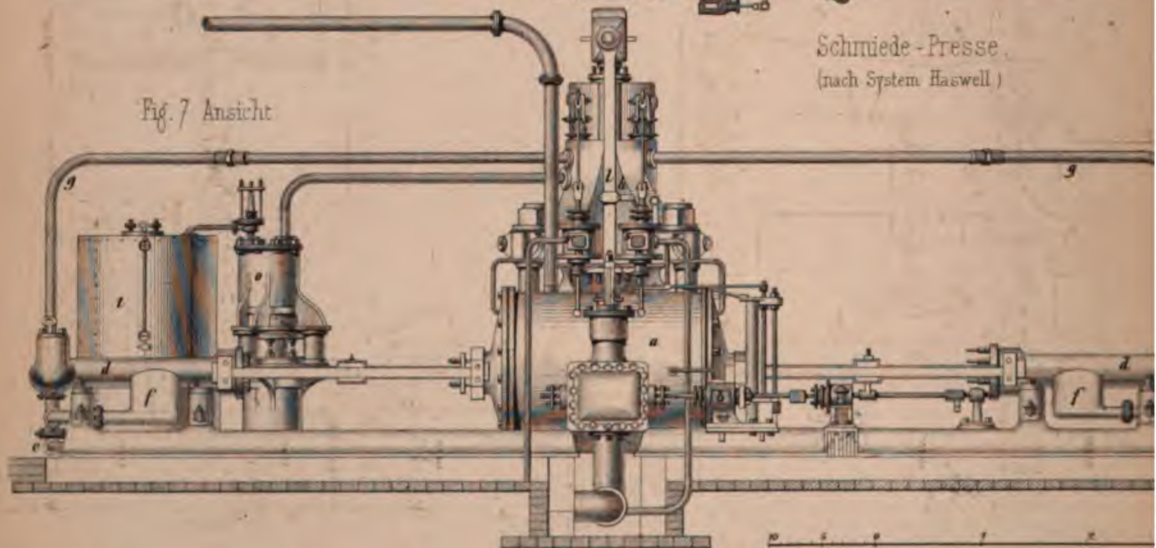
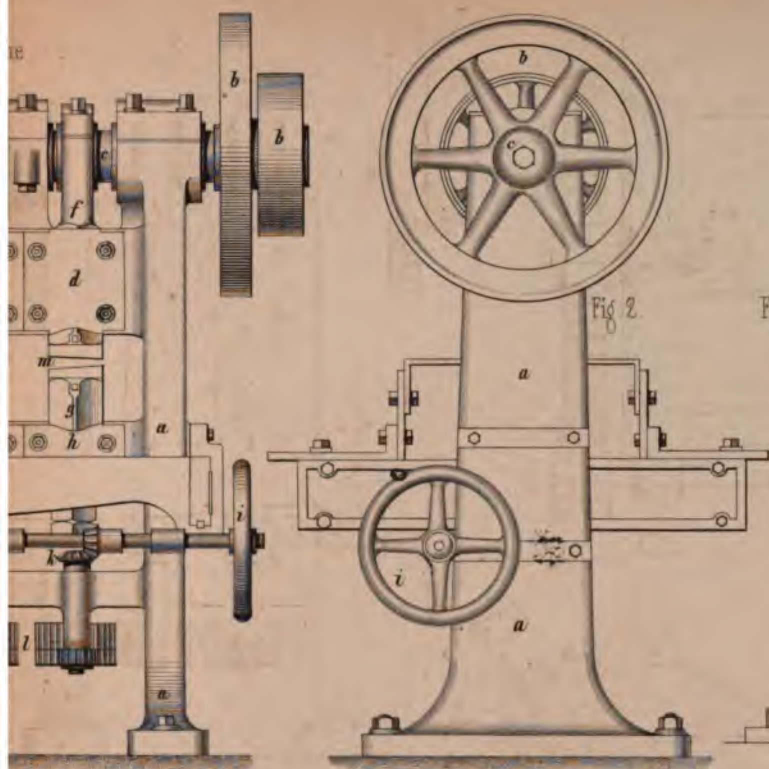
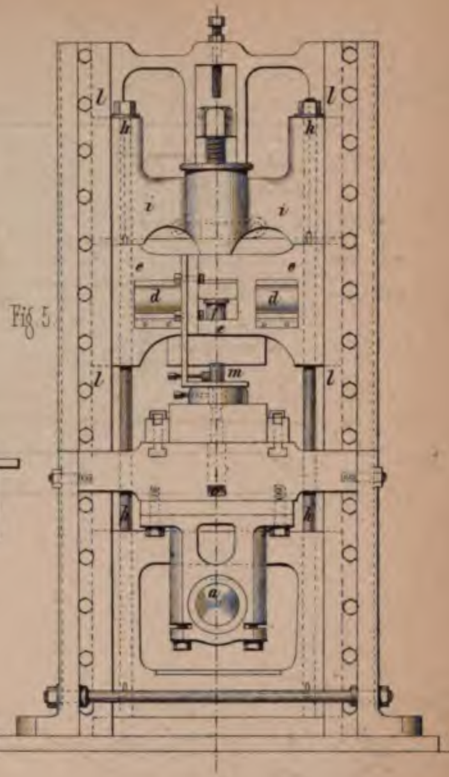
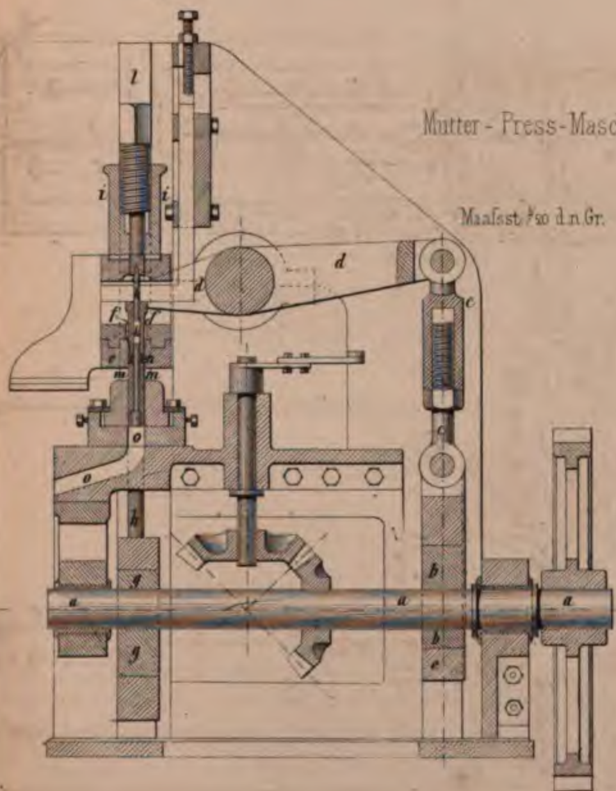


Fig. 7 Ansicht

Lith. Anst. v. F. Wirtz, Darmstadt.

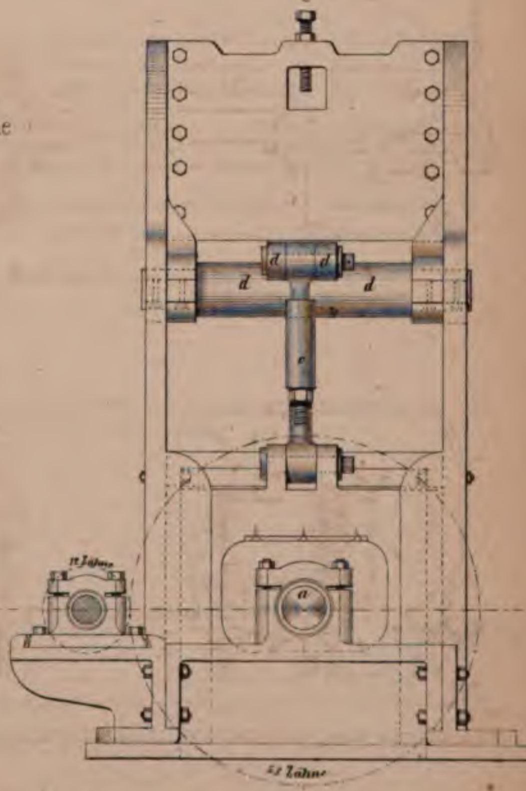






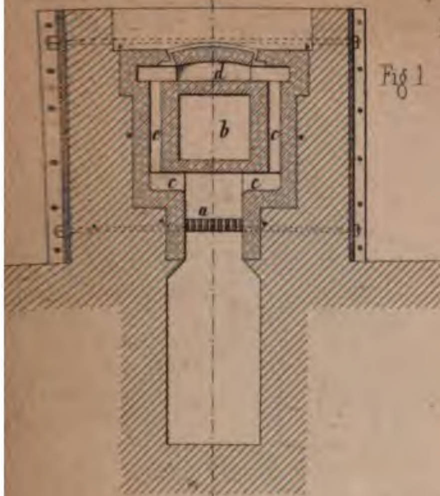
Mutter-Press-Maschine

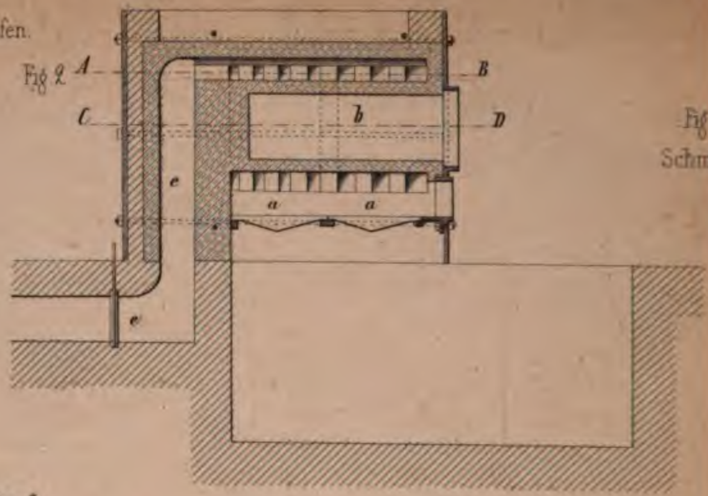
Maafsst. 1/10 d. n. Gr.



Schmiedeanla

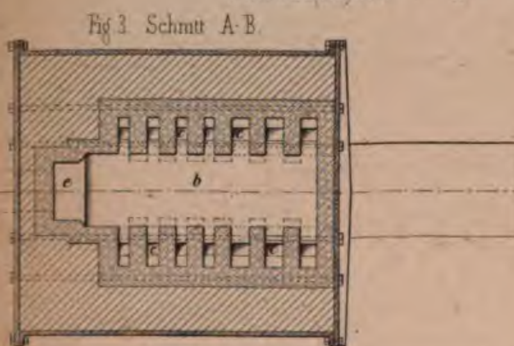
Einsetzofen.





1/50 n. Gr.

Centimeter.


Fig 3. Schnitt A-B.

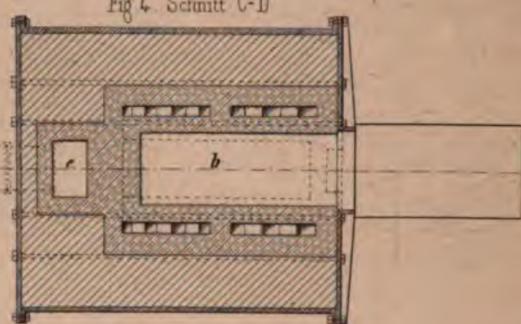
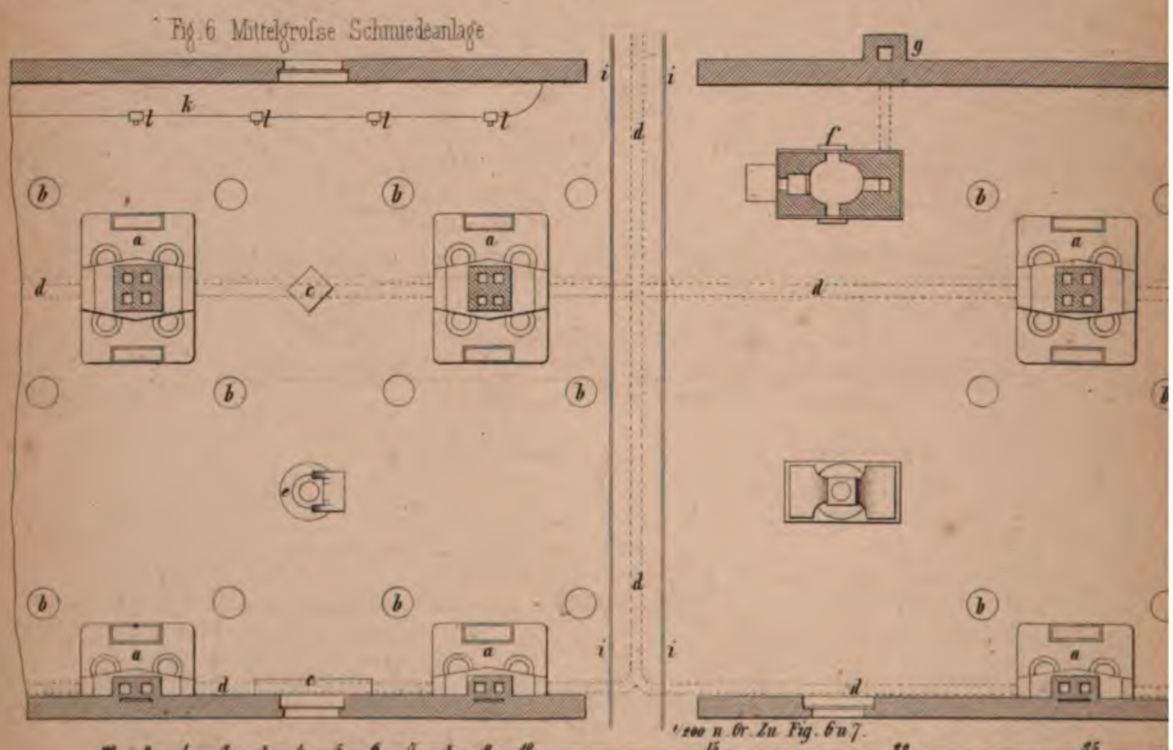

Fig 4. Schnitt C-D

Fig 6. Mittelgrofse Schmiedeanlage

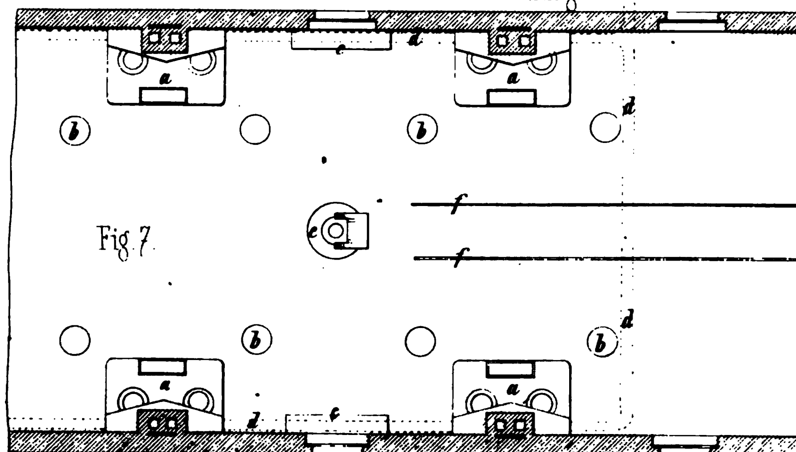


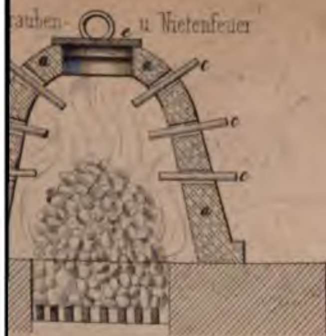
1/200 n. Gr. Zu Fig. 6 u 7.

1/250 n. Gr. Zu Fig. 5.

15 Meter

Lith. Anst. F. Wirtz, Darmstadt


Kleinere Schmiedeanlage
Fig. 7.
10 Meter.



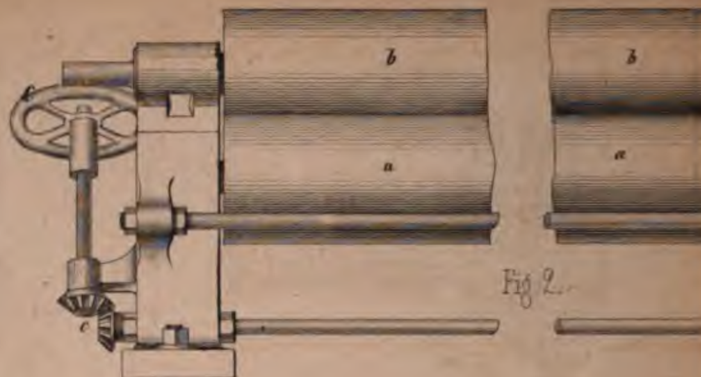
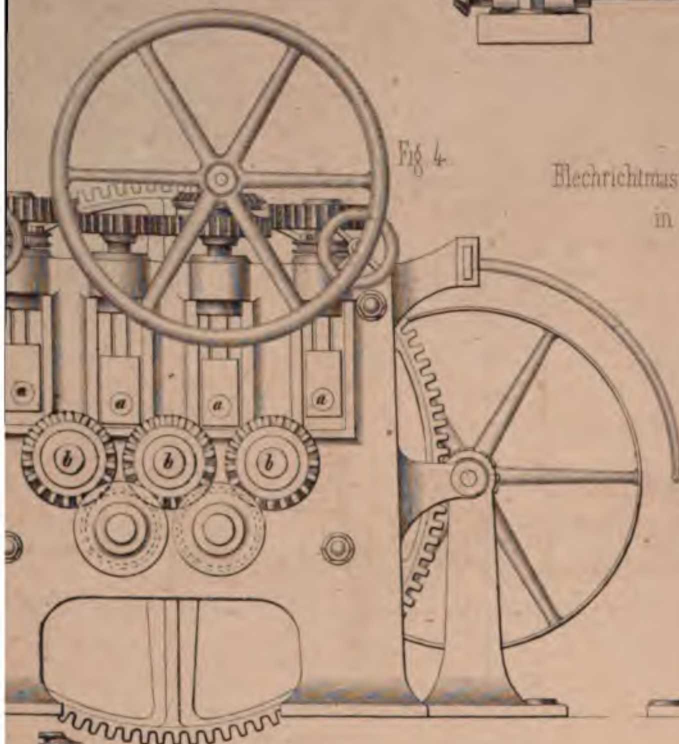


Fig. 4.

Blechrichtmaschine v. R. Hartmann in Chemnitz

Fig. 5



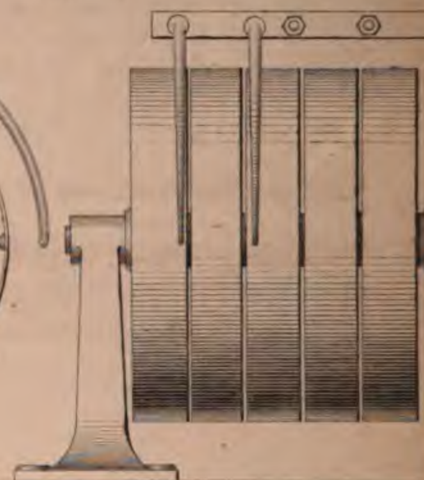
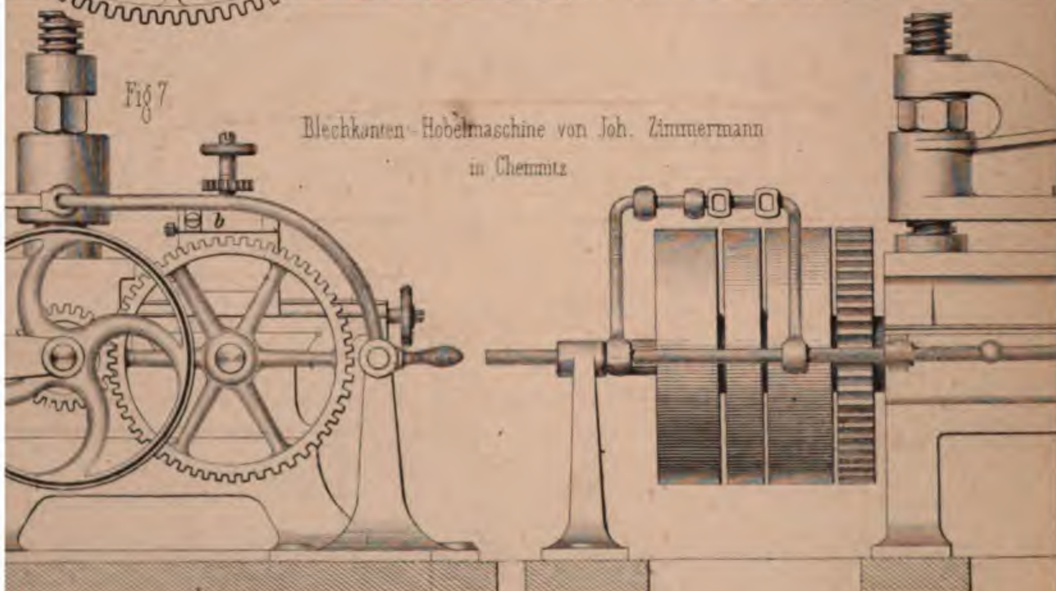
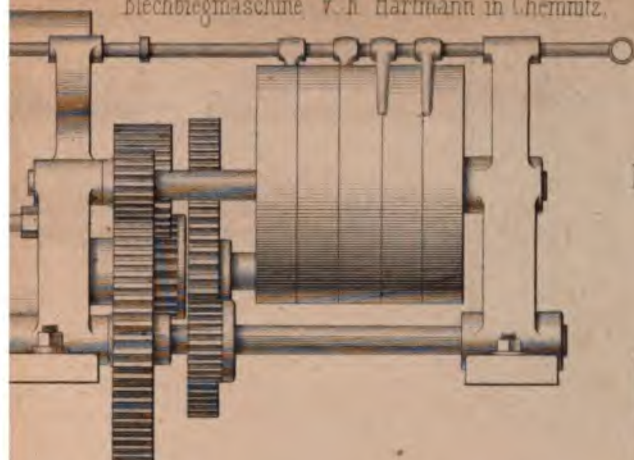


Fig. 7

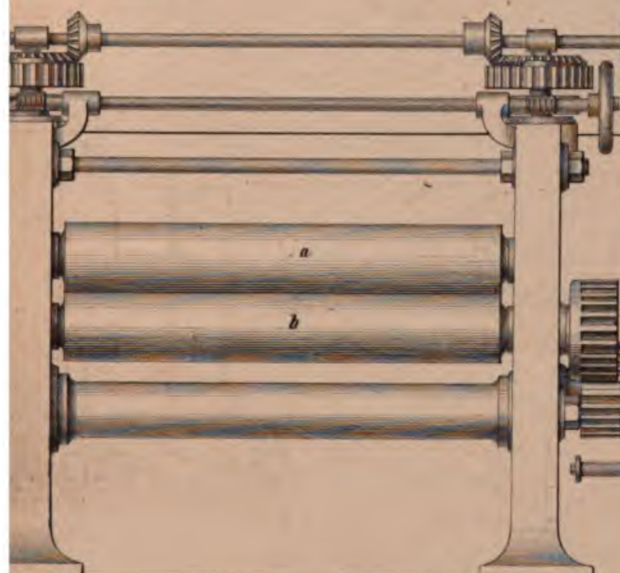
Blechkanten-Hobelmaschine von Joh. Zimmermann in Chemnitz



Blechbiegmaschine v. R. Hartmann in Chemnitz.







Blechscheere und Loch-maschine

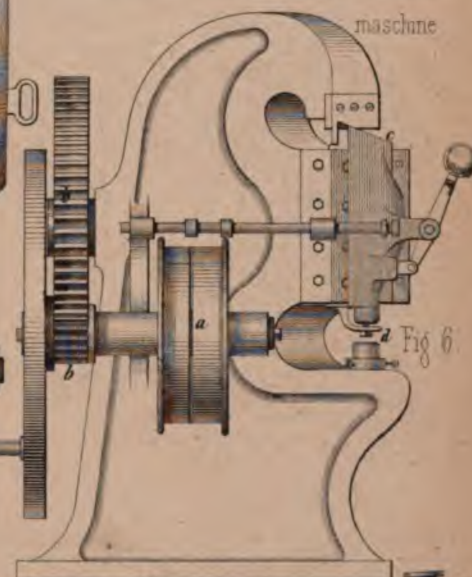
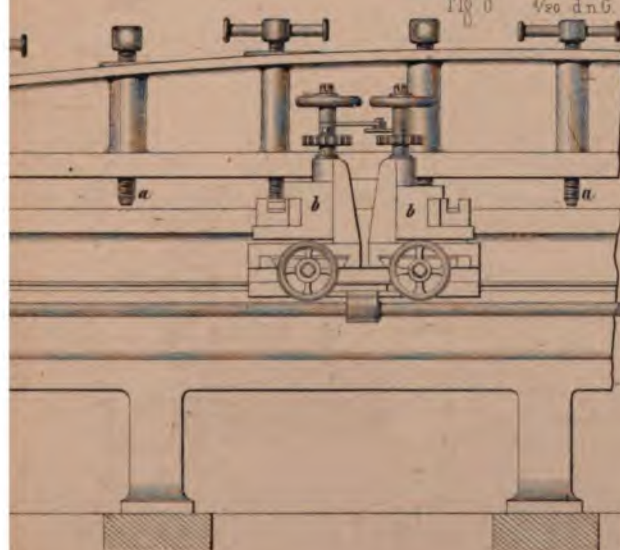
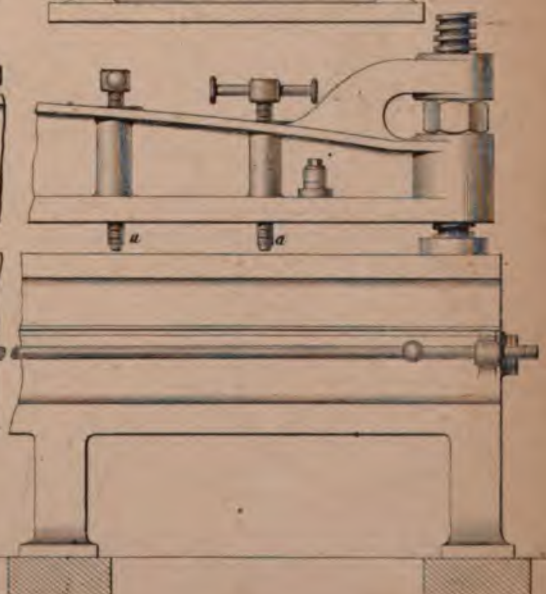


Fig. 8 1/20 d. n. G.





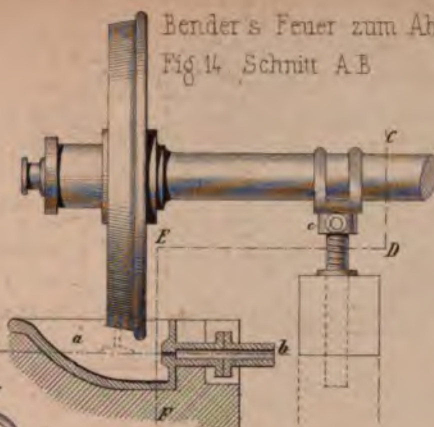
i d. Werkstätten d. Köln-
ner-E.B.

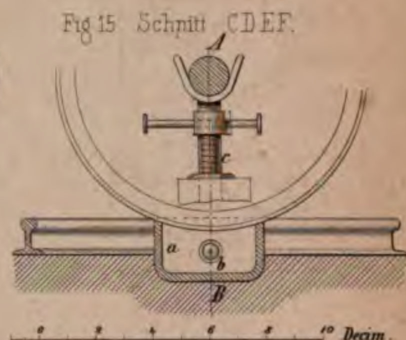


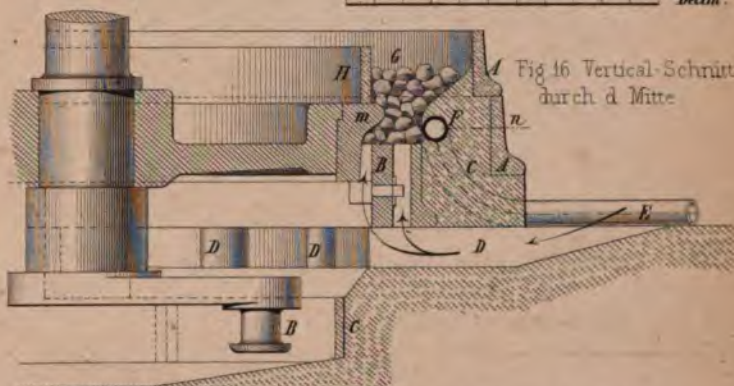




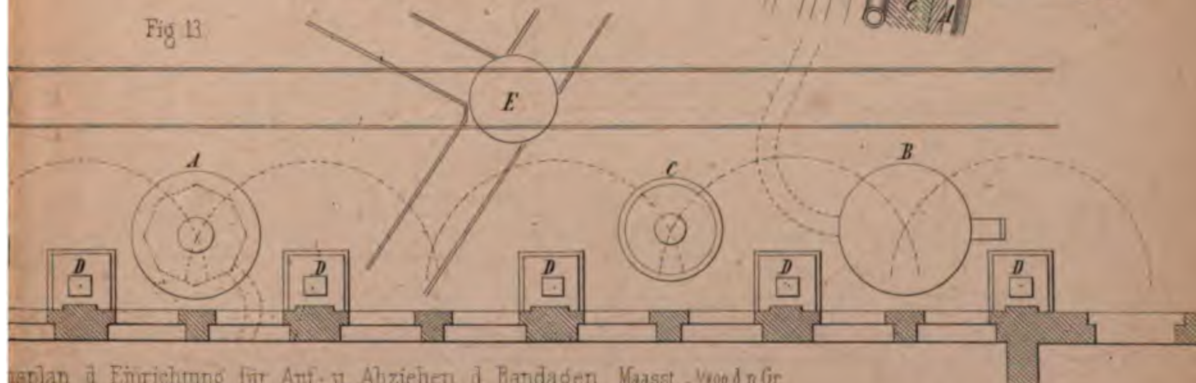
Bender's Feuer zum Abziehen d. Radreifen





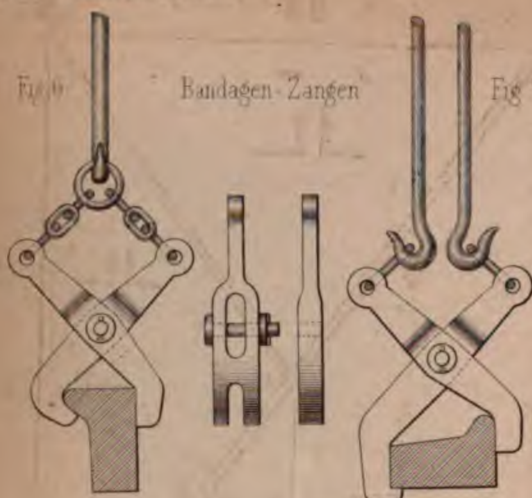


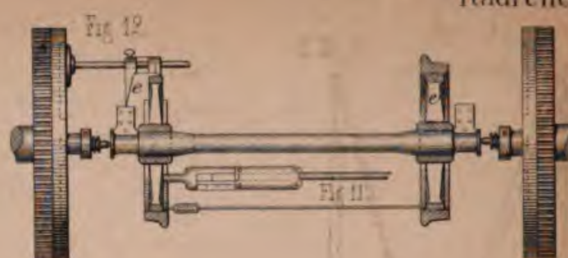


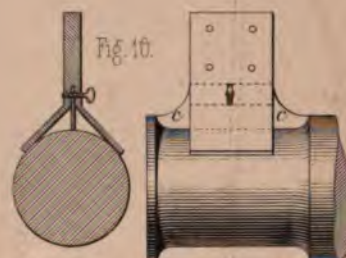


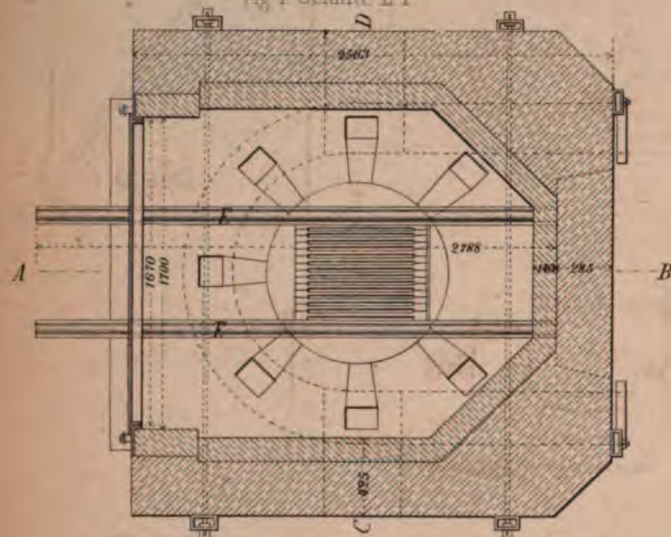
splan d. Einrichtung für Auf- u. Abziehen d. Bandagen. Maasst. 1/400 d.n.Gr.

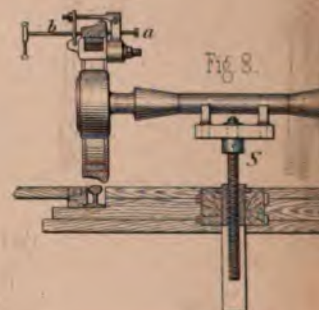
Radreifen

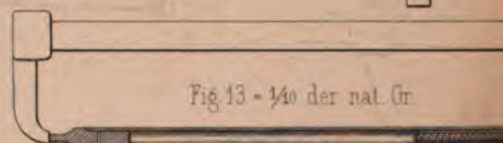


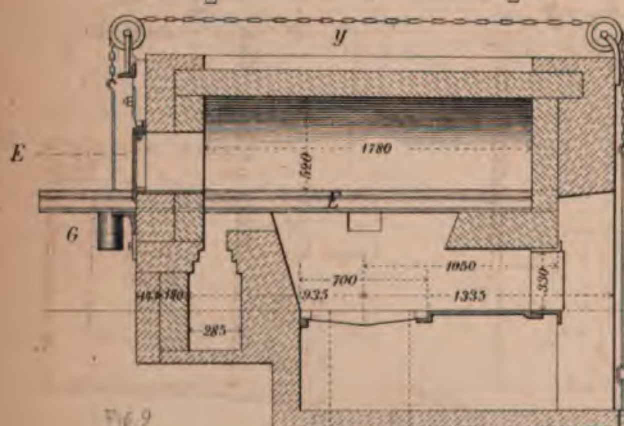


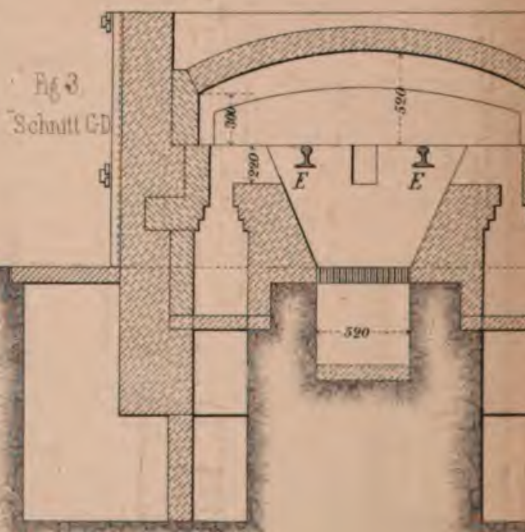




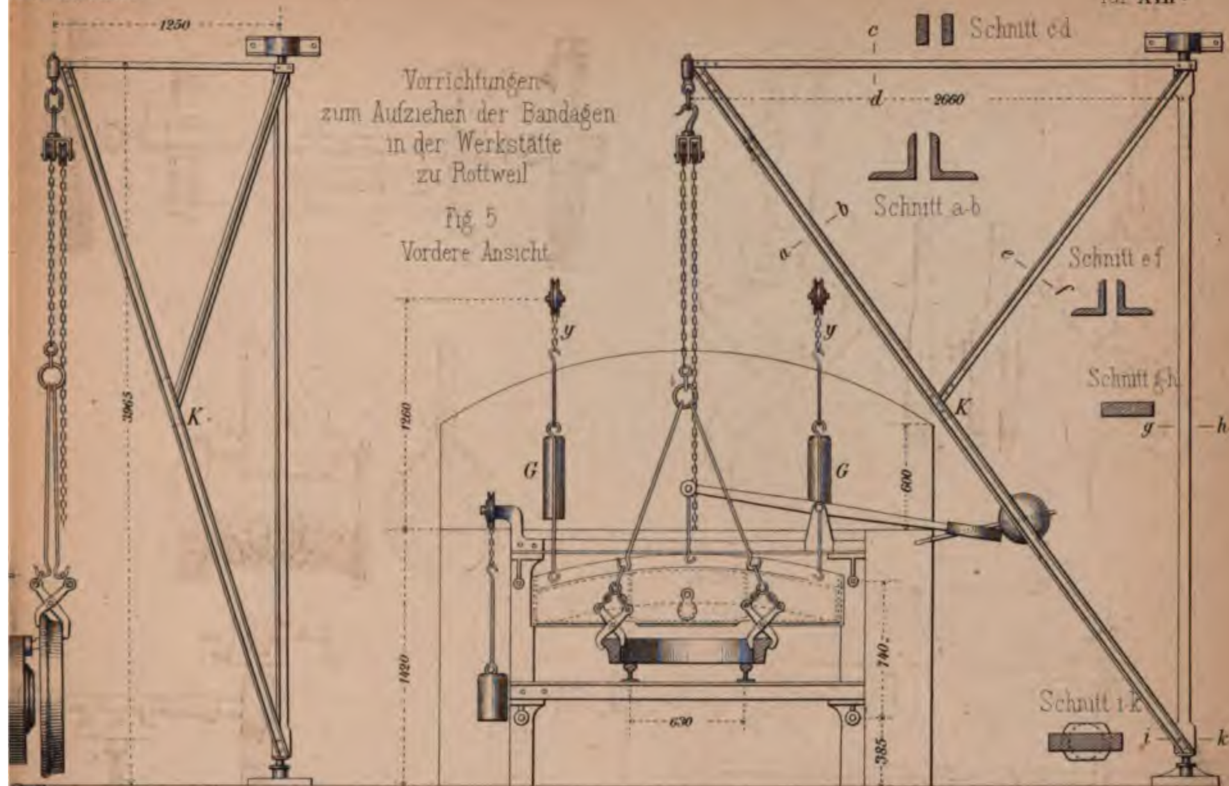


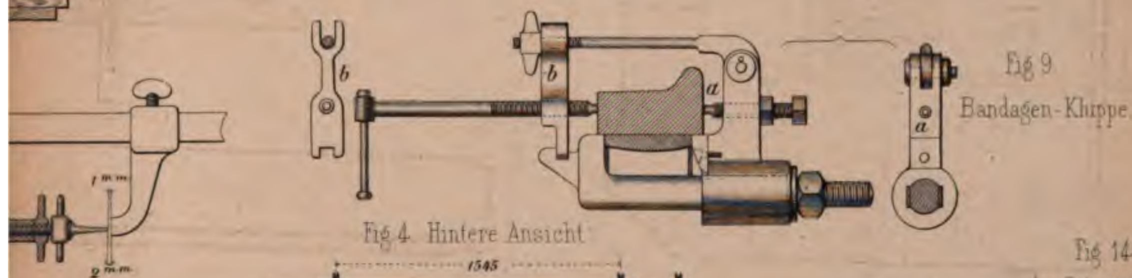


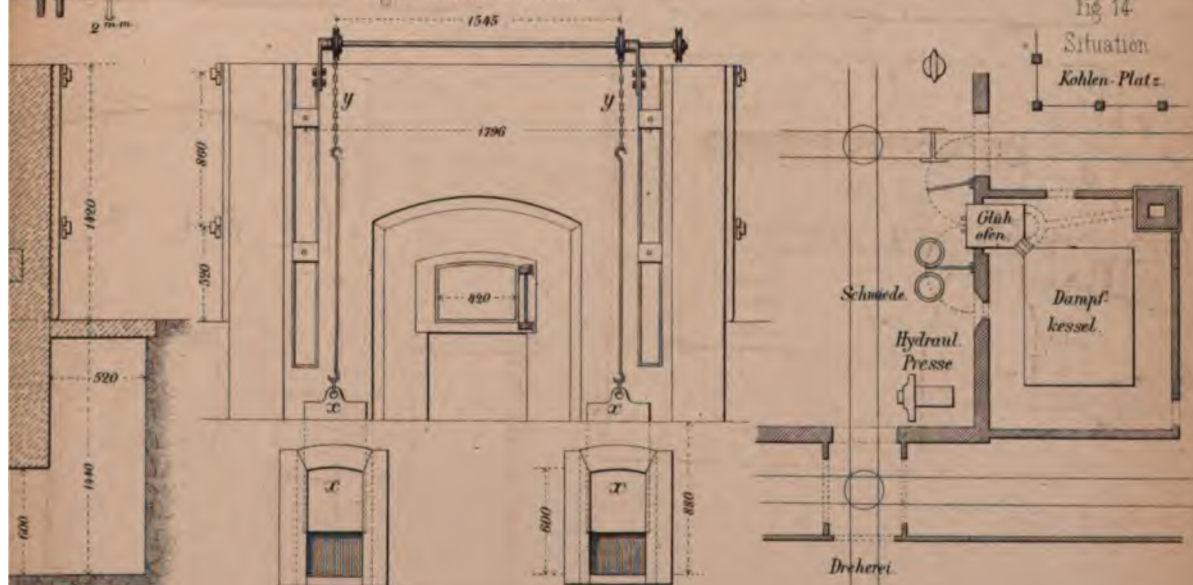




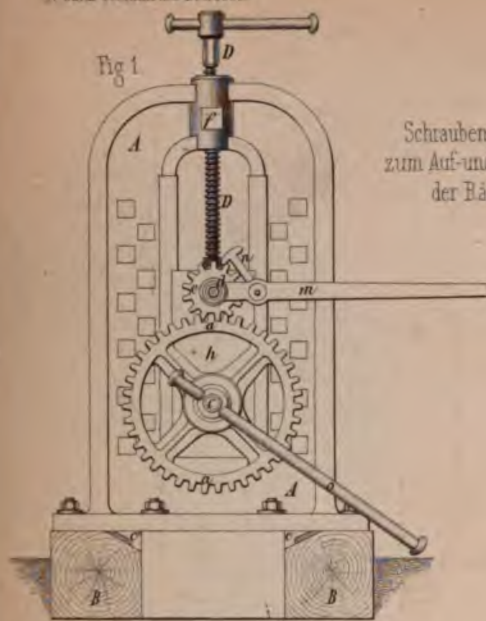
Lith. Anst. v. F. Wirtz, Darmstadt.


1250
Vorrichtungen
zum Aufziehen der Bandagen
in der Werkstätte
zu Rottweil
Fig. 5
Vordere Ansicht
Schnitt c-d
2660
Schnitt a-b
Schnitt e-f
Schnitt g-h
Schnitt i-k
3963
1260
1420
600
740
630
385
G
K
y

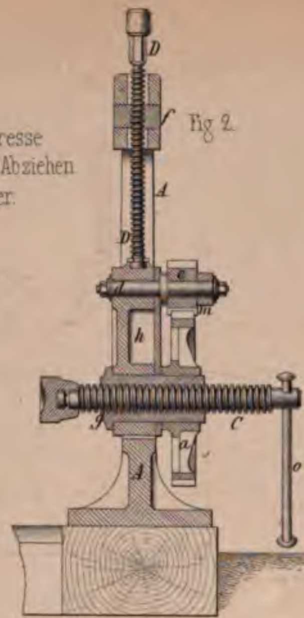

Fig 9.
Bandagen-Klippe.
a
b

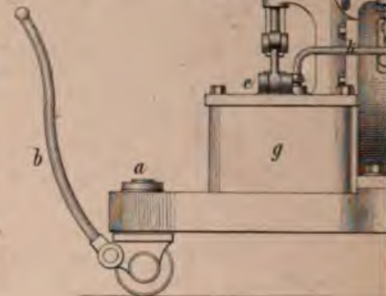

Fig 4. Hintere Ansicht
1545
1796
860
520
420
1420
520
600
880
x
y
Fig 14.
Situation
Kohlen-Platz
Glüh-ofen.
Schmiede.
Dampf-kessel.
Hydraul. Presse
Dreherei.

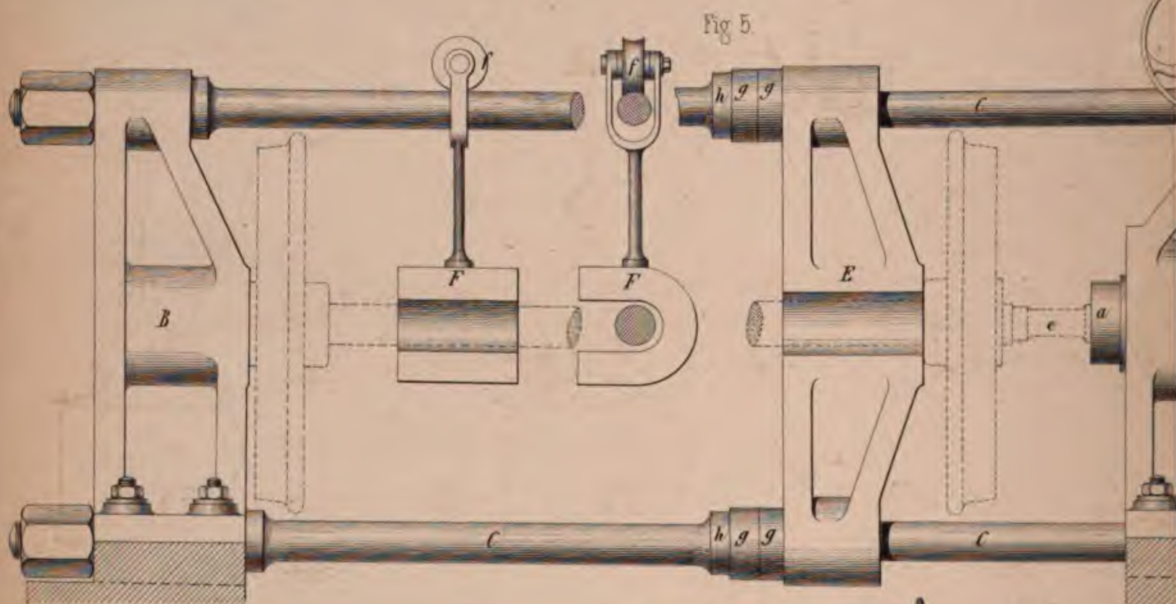
Räderpres



Schraubenpresse
zum Auf- und Abziehen
der Räder.







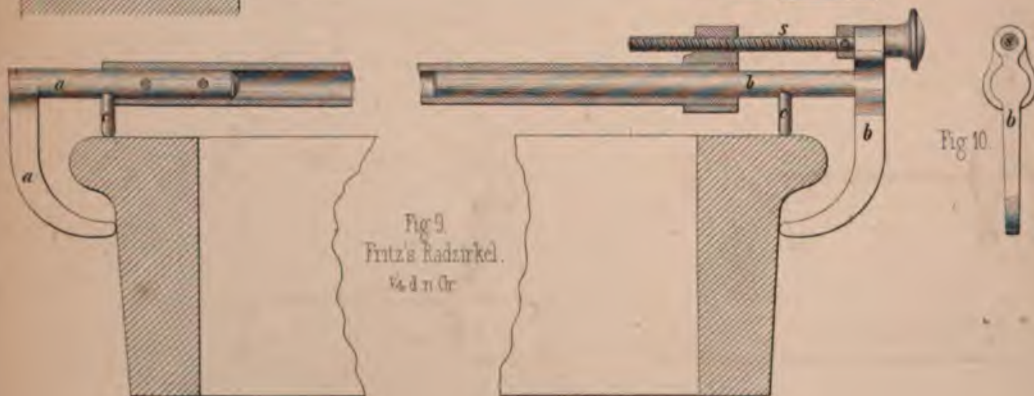


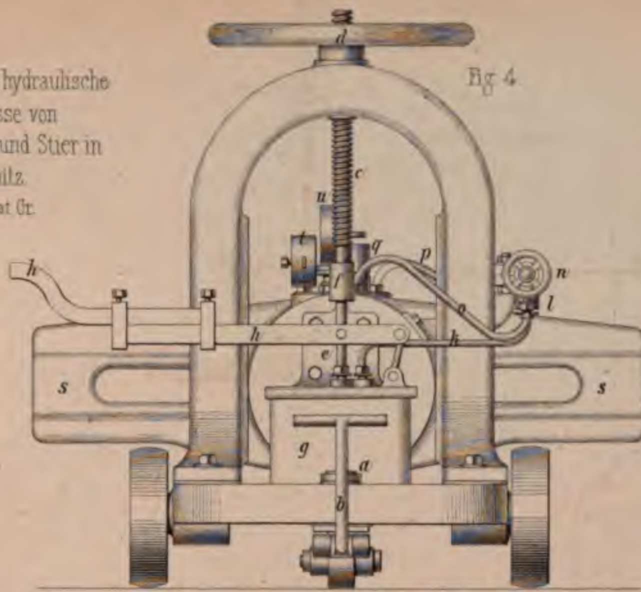
Fig 9.
Fritz's Radzirkel.
¼ d. n. Gr.

Lith. Anst. v. F. Wirtz, Darmstadt.



Transportable hydraulische Räderpresse von Sondermann und Stier in Chemnitz.

⅛ d. nat. Gr.

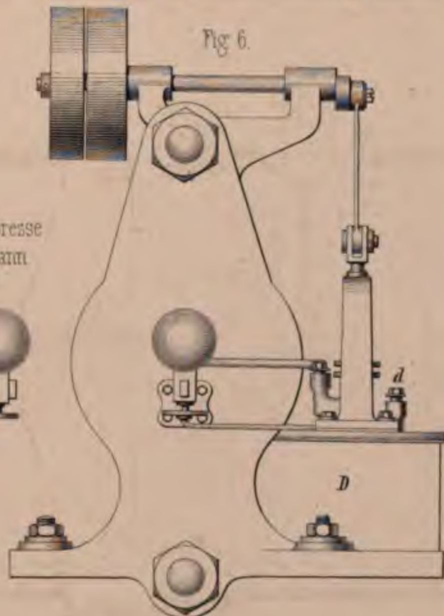


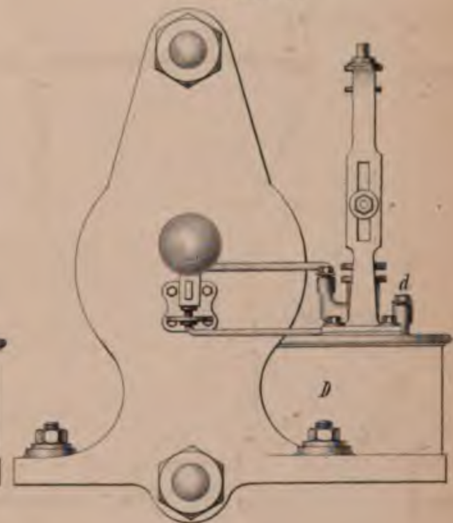


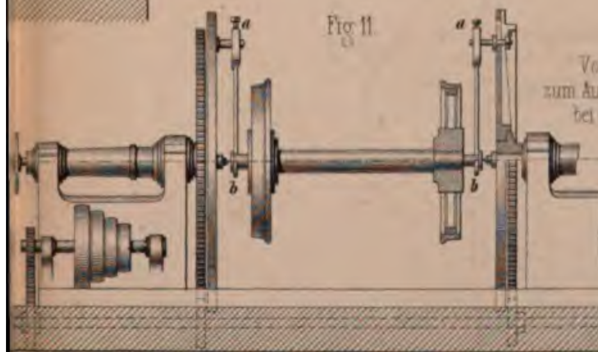


Stabile hydraulische Räderpresse von Joh. Zimmermann in Chemnitz.

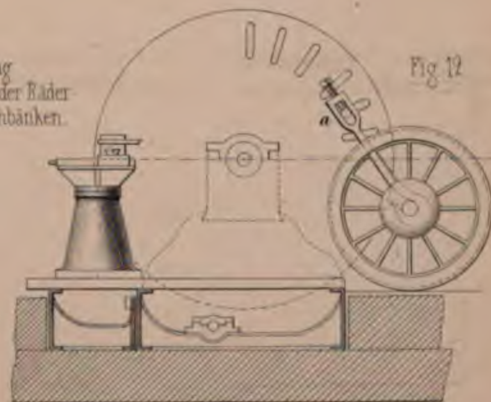
⅛ d. n. Gr.





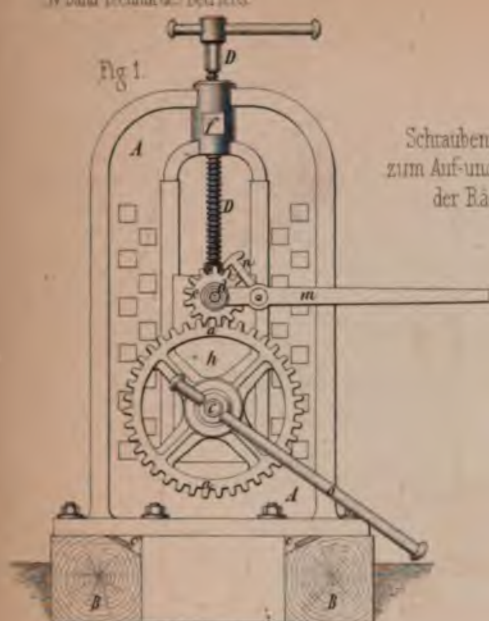


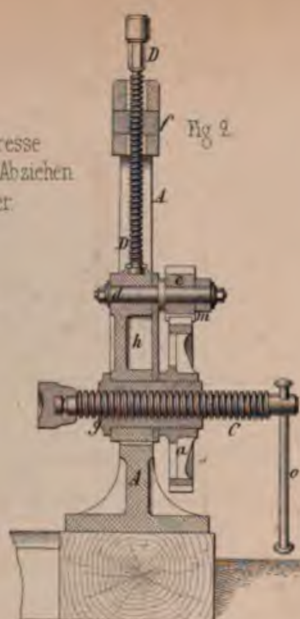
Vorrichtung zum Aufheben der Räder bei den Drehbänken.

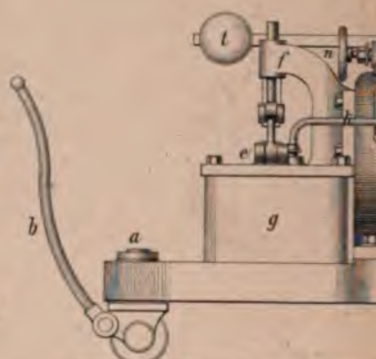


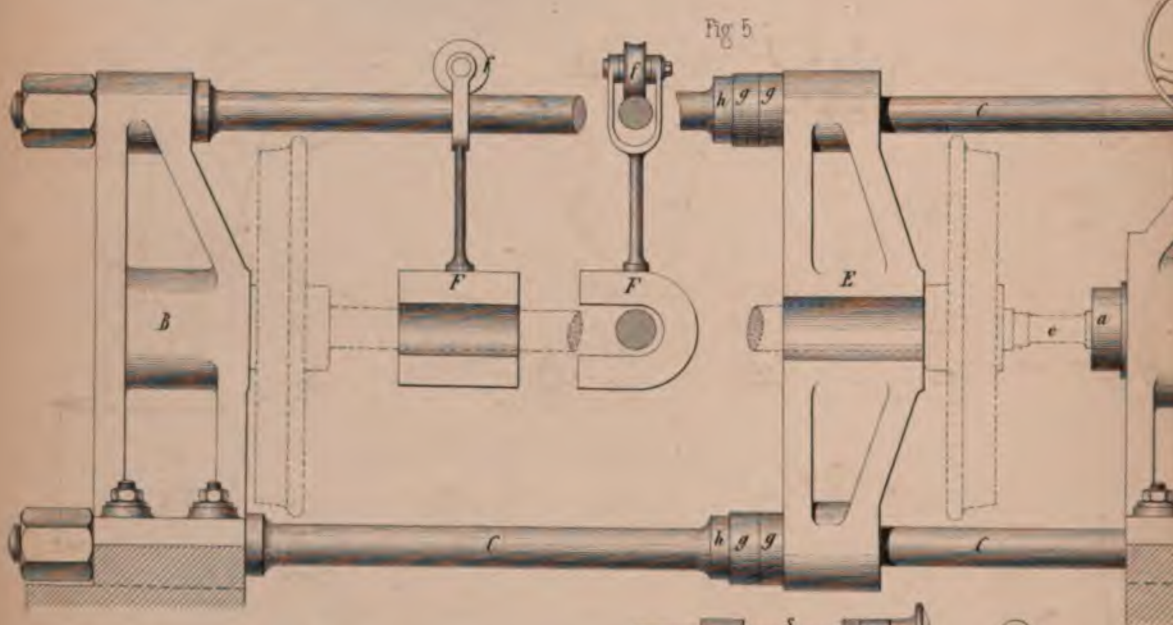
Räderpres

Schraubenpresse zum Auf- und Abziehen der Räder









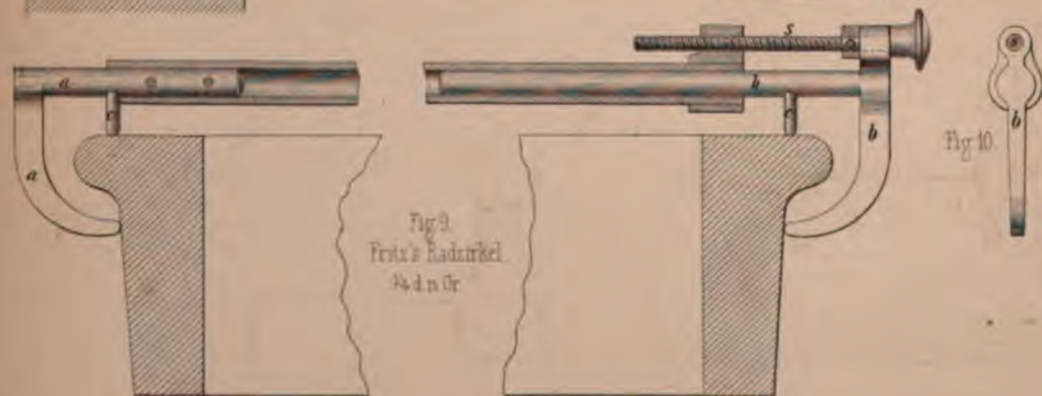


Fig 9.
Fritz's Radzirkel
¼ d. n. Gr.

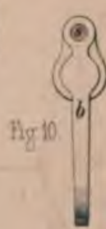
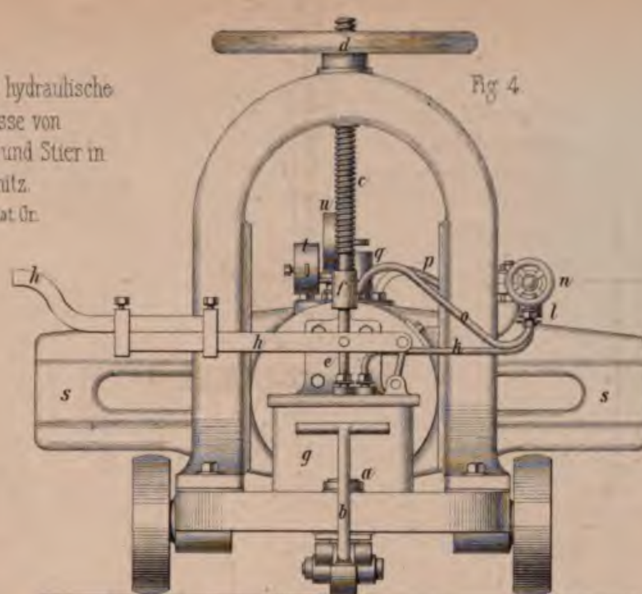


Fig 10.

Lith. Anst. v. F. Wirtz, Darmstadt.



Transportable hydraulische Räderpresse von Sondermann und Stier in Chemnitz.
1/20 d. nat. Gr.

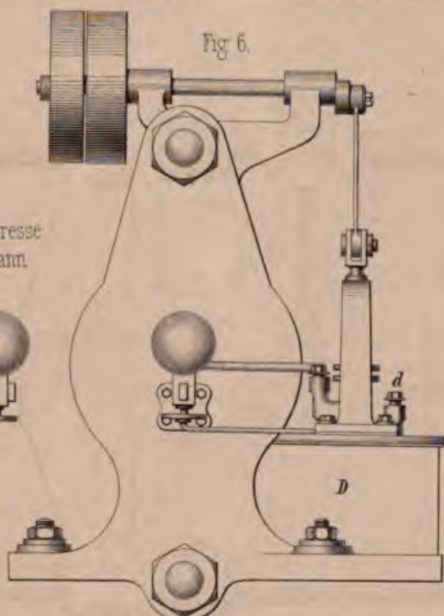


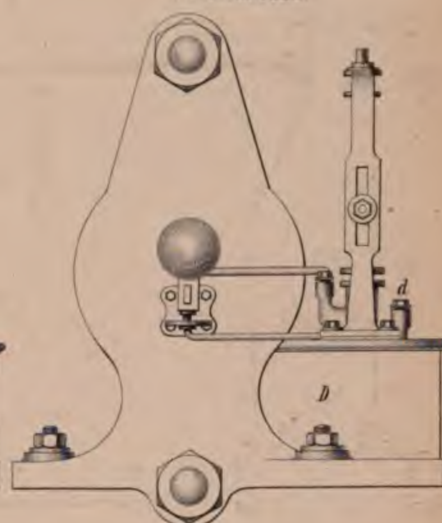


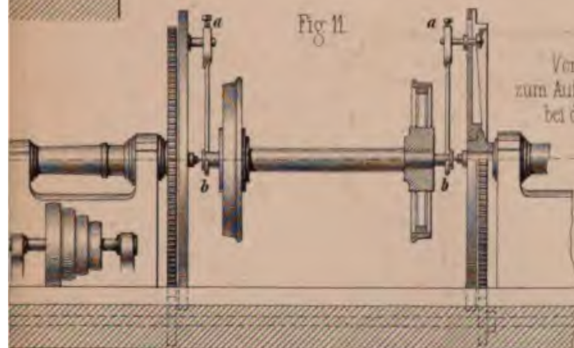


Stabile hydraulische Räderpresse von Joh. Zimmermann in Chemnitz.

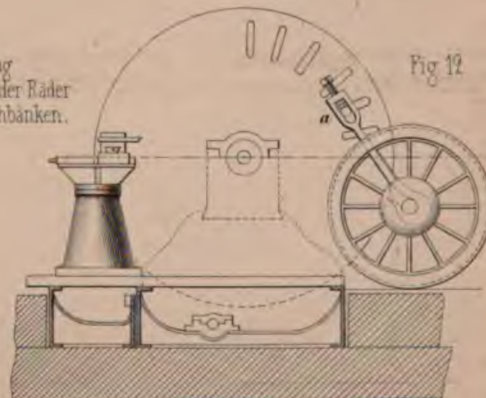
1/20 d. n. Gr.



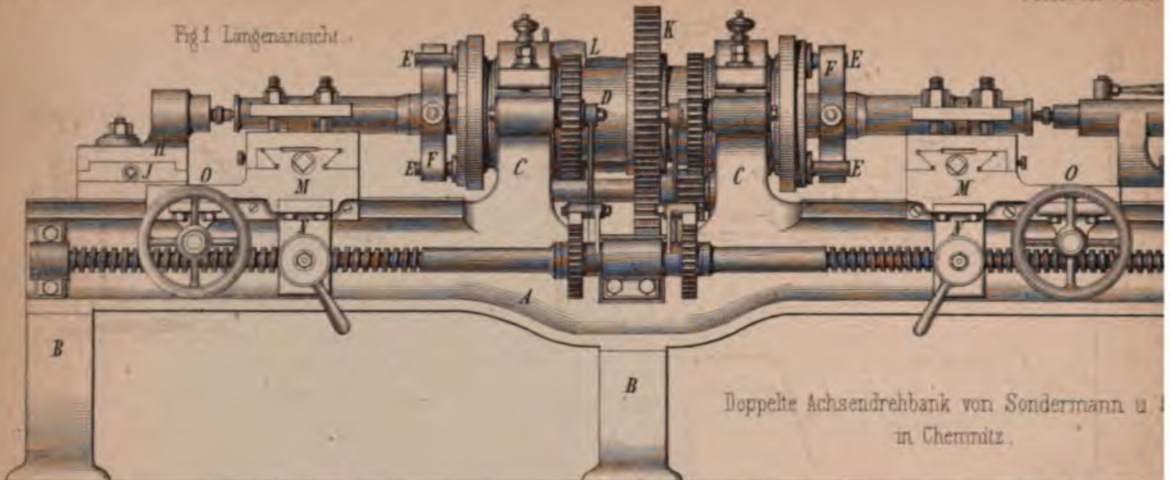


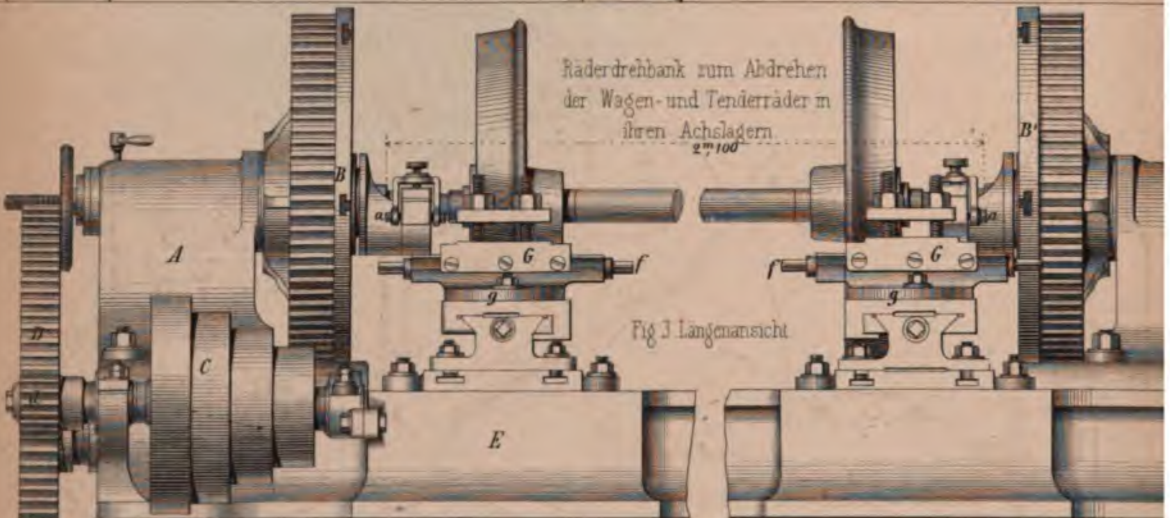


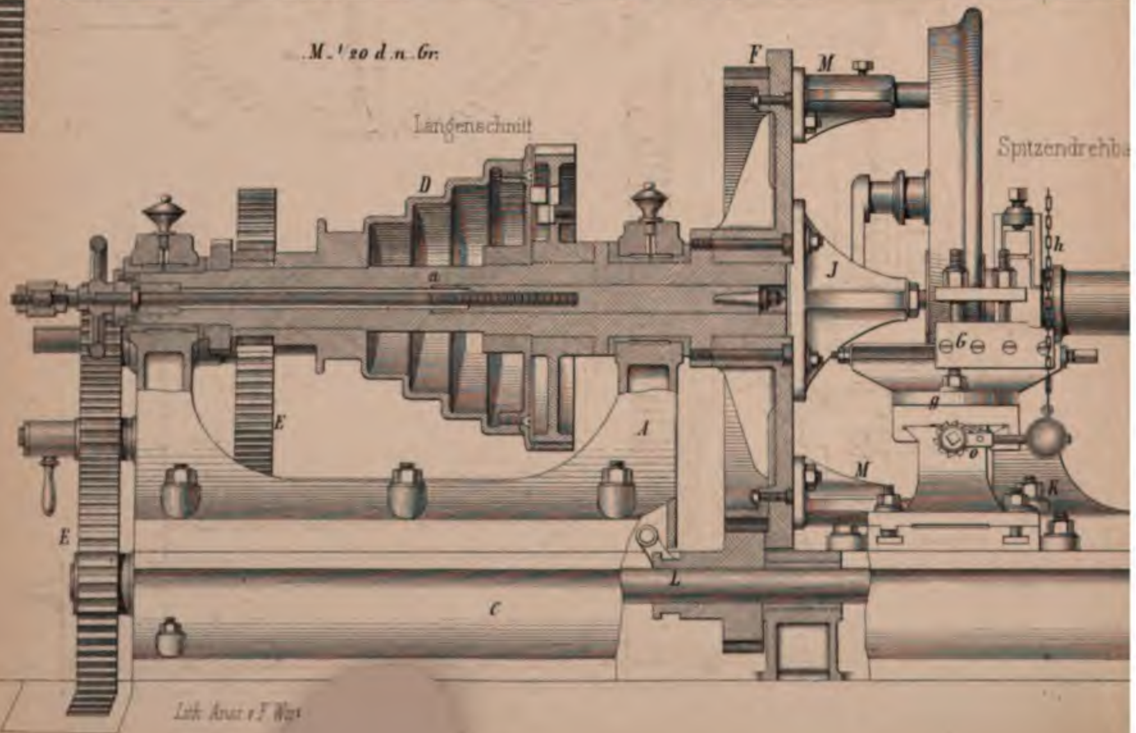
Vorrichtung zum Aufheben der Räder bei den Drehbänken.



Achsen- und







Lith. Anst. v. F. Wir

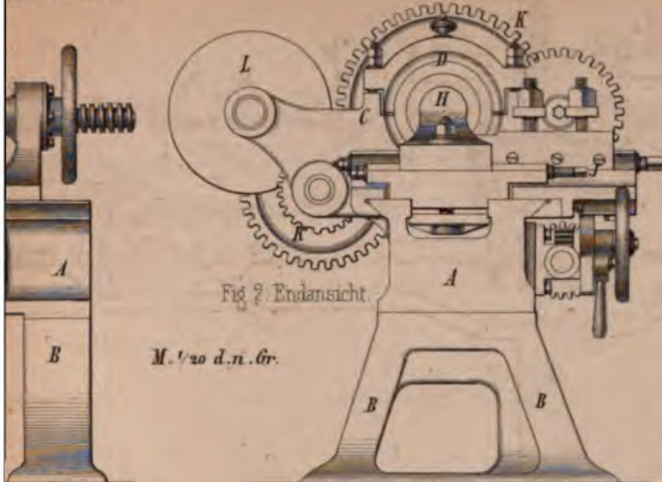


Fig. 2. Endansicht.



Fig. 5. Exhauster zum Schleifapparat.

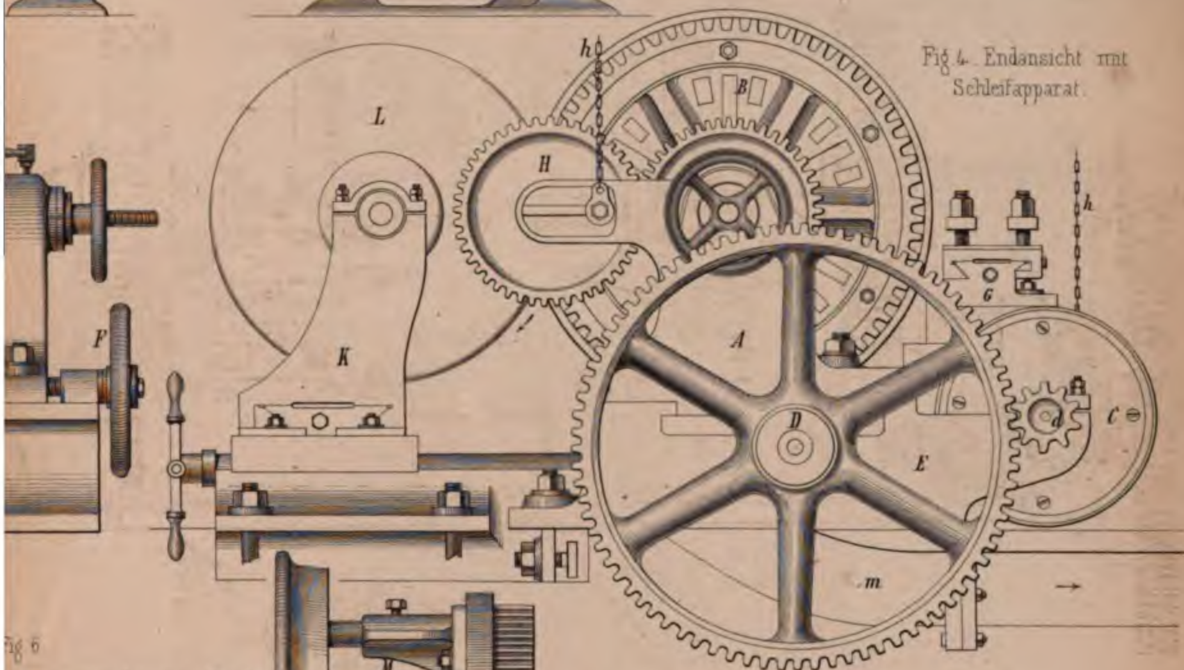
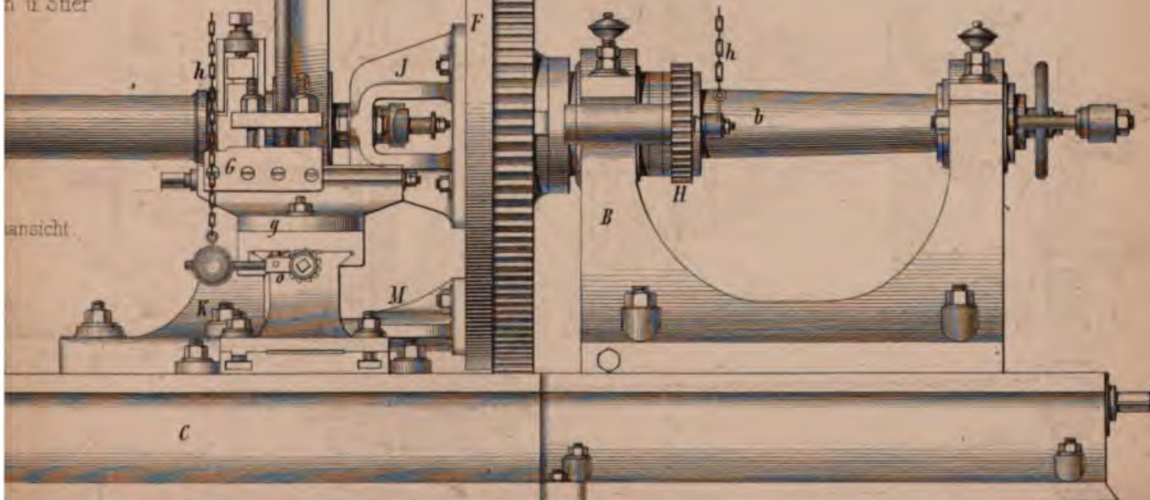
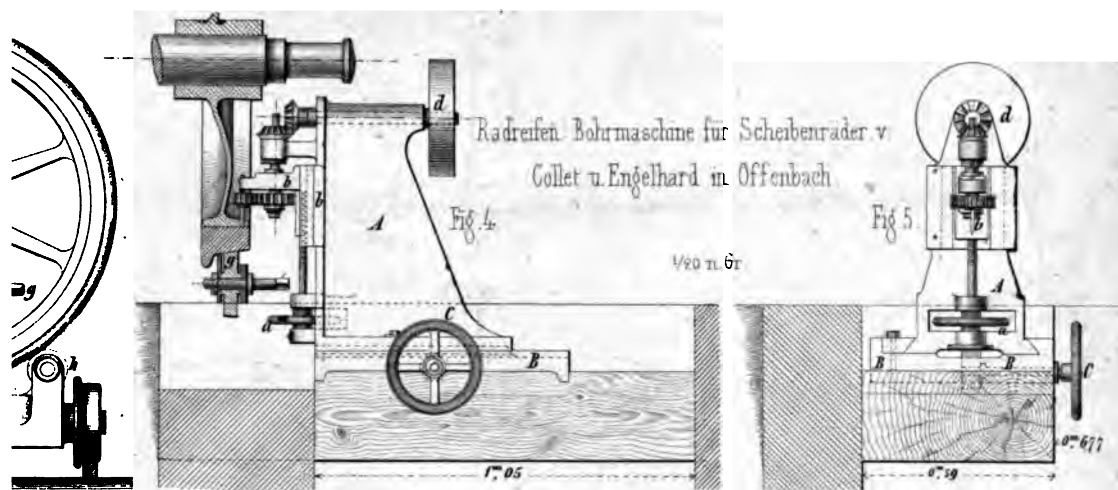


Fig. 4. Endansicht mit Schleifapparat.

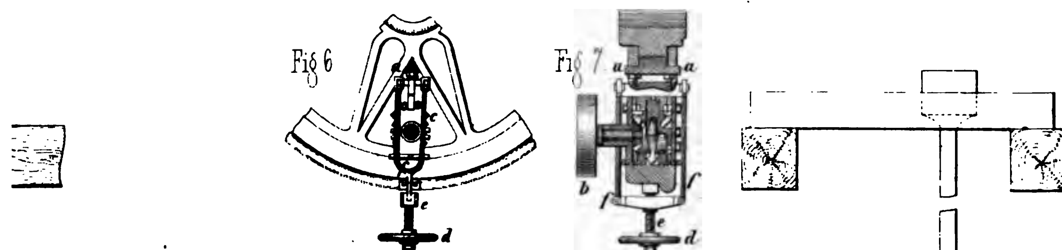
Fig. 6
Locomotivräder von Sonder…
…n u. Stier



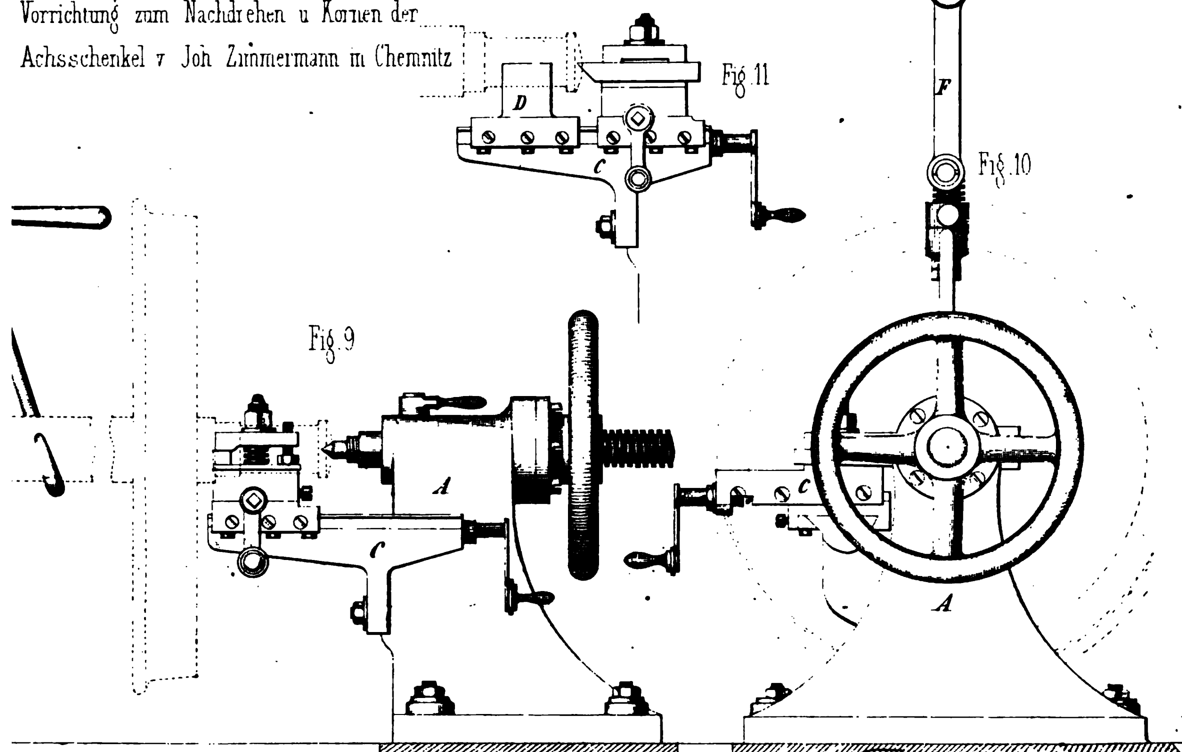
…ansicht.

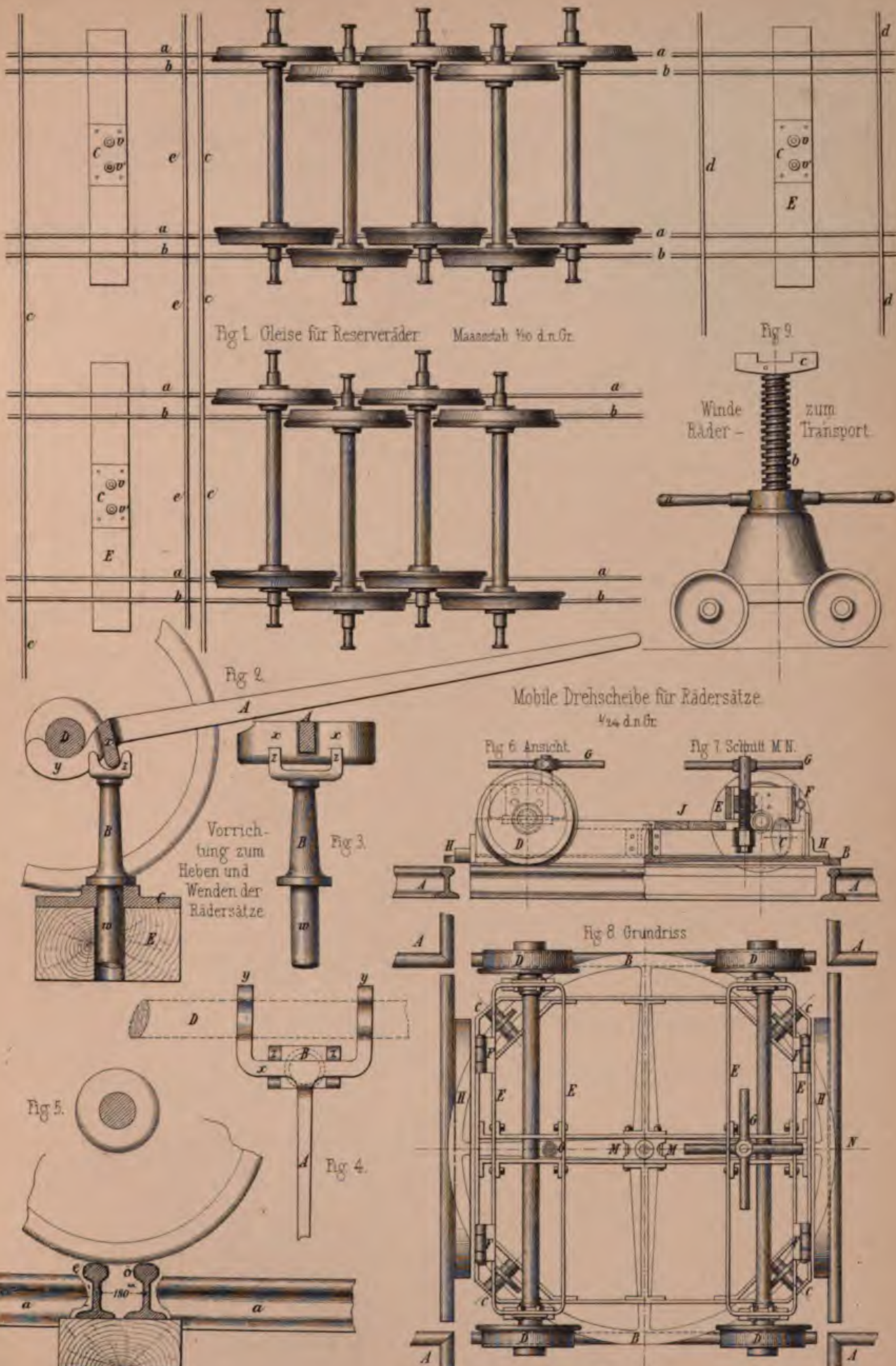


Sammann's Radreifenbohrmaschine. 1/20 n. Gr



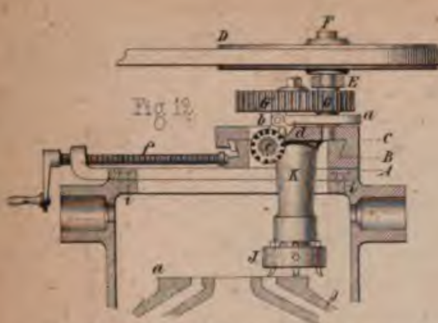
Vorrichtung zum Nachdrehen u Kornen der Achsschenkel v Joh Zimmermann in Chemnitz

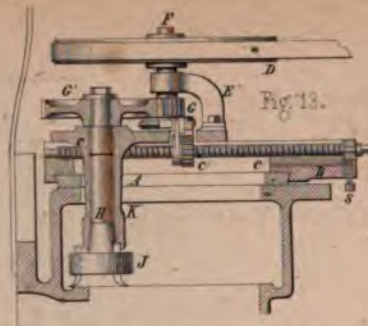




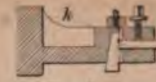
Lith. Anst. v. F. Wirtz, Darmstadt.

Cylinder-Bohrmaschinen, Schieber
Bearbeiten d





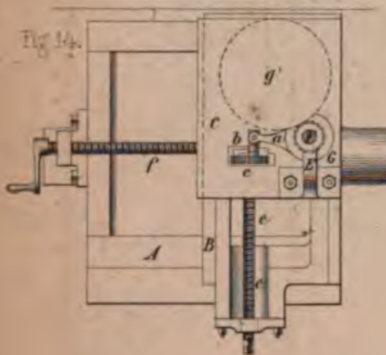
Luschka's Fraismaschine zum Planiren abgenutzter Schieberflächen.





Rice u. Evered's Bohrwandbohrer.

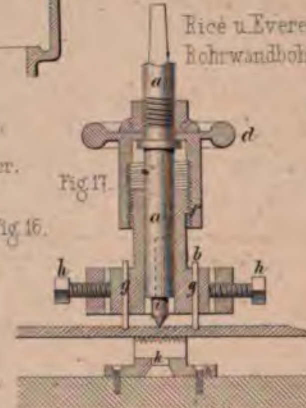
Fig. 4a



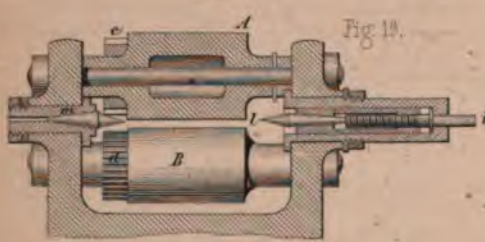
Webster's Bohrwandbohrer.

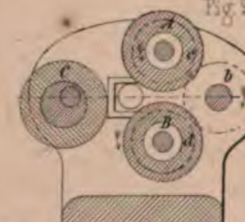




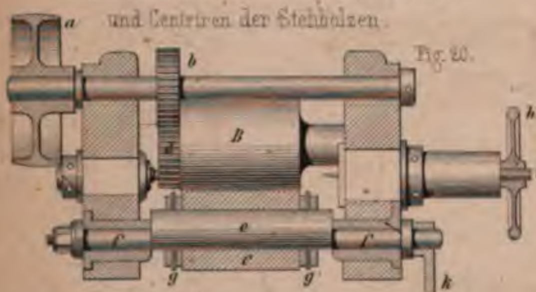




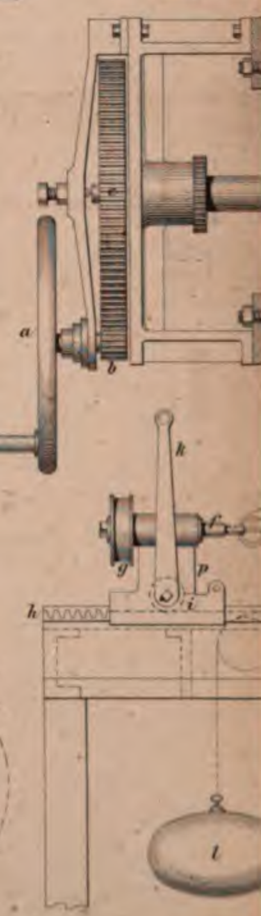




Ramsbottom's Maschine zum Geradrichten und Centriren der Stehbolzen.







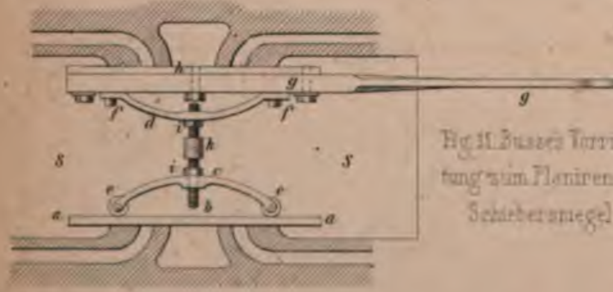


Fig. 11. Busse's Vorrichtung zum Planiren der Schieberspiegel.



Lith. Anst. v. F. Wirtz, Darmstadt.

Fig. 8. Rabe's Cylinder-Bohrmaschine.

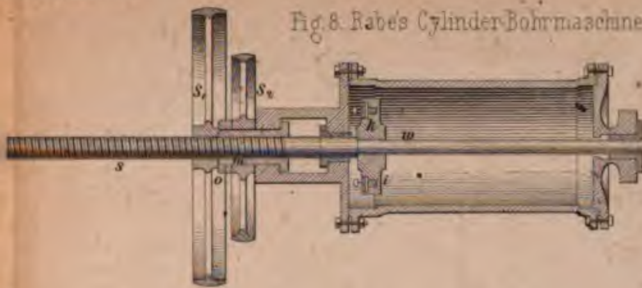
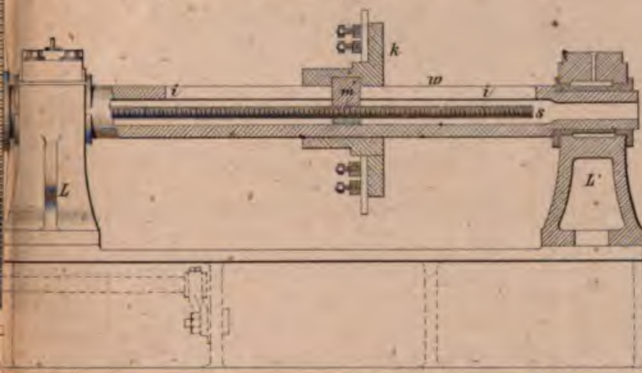


Fig. 2. Horizontale Cylinder-Bohrmaschine.



ig. 9. Ehrhardt's Cylinder-Bohrmaschine.

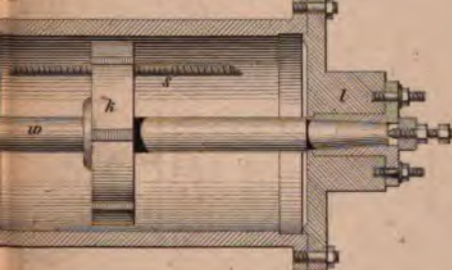
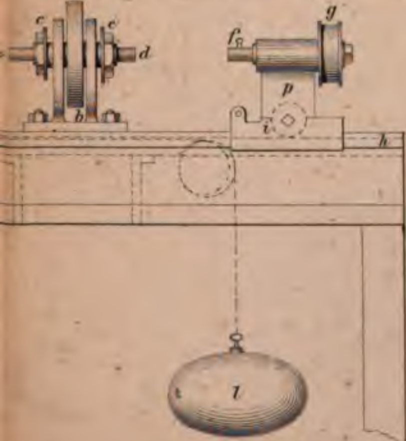




Fig. 10. Stehbolzen-Bohrmaschine.



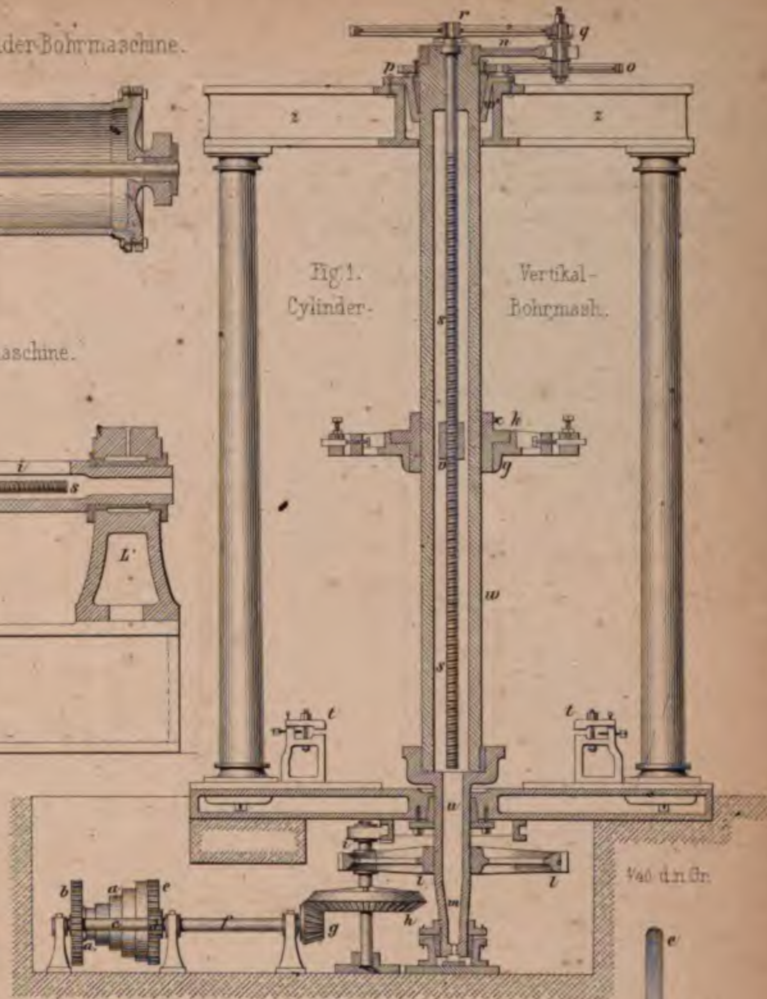


Fig. 7. Busse's Cylinder-Bohrmaschine.

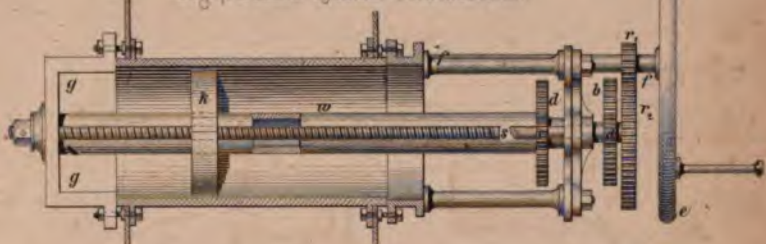


Fig. 6. Lausmann's Cylinder-Bohrmaschine.

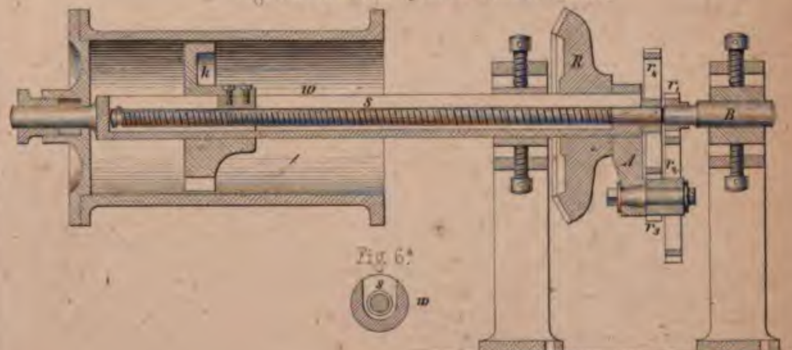


Fig. 1

Mendelsohn's Kluppe zum Nachrunden der Kurbelzapfen

¼ der nat. Gr.

Fig. 2

Fig. 3

Fig. 13. Steuerungsspindel.

Fig. 4

Verbesserte Stehbolzenscheere.

⅓ nat. Gr.

Fig. 5

Fig. 11 Messerkopf

Fig. 12. Bügel zur Verbindung d. Treibspindel u. Trommel.

Fig. 10. Schnitt e-f.

Curant's Vorrichtung zum Abdrehen einseitig abgenutzter Locomotiv-Kurbel-Zapfen

⅓ nat. Gr.

Fig. 8. Schnitt c-d.

Fig. 9. Schnitt a-b.

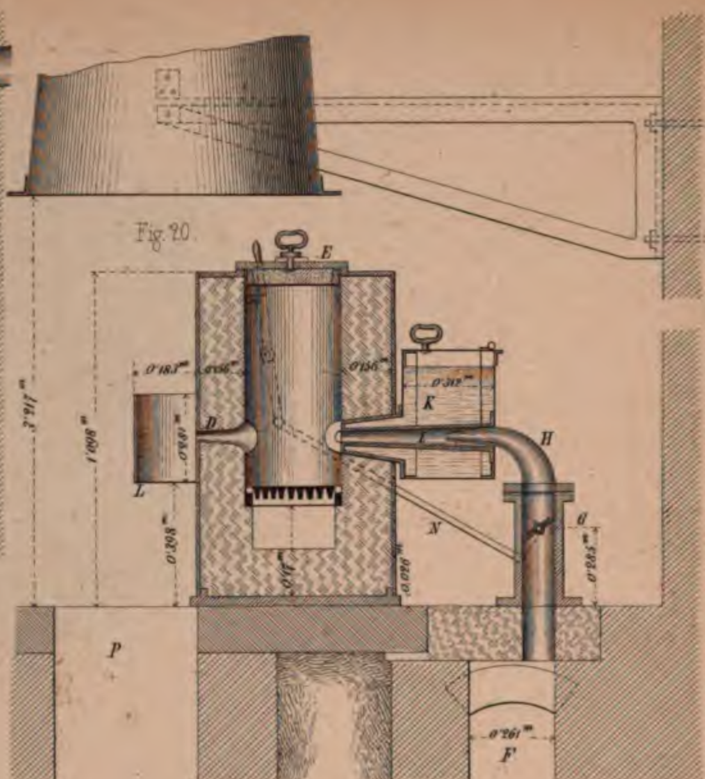
Fig. 6 Seitenansicht.

Fig. 7. Vorderansicht

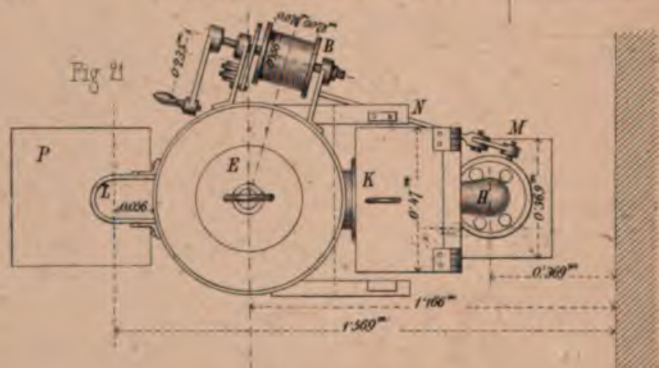
Lith. Anst. v. F. Wirtz, Darmstadt.

Sieder

Siederohr-Löthofen in Witten



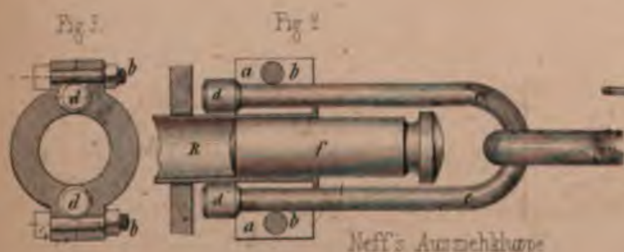




Bruckmann's Auszehbacken



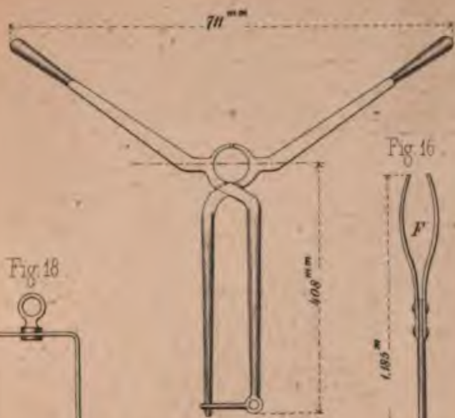
Fig. 1.



Neff's Auszehkluppe

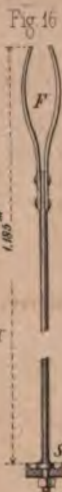


Lith. Anst. v. F. Wirtz, Darmstadt

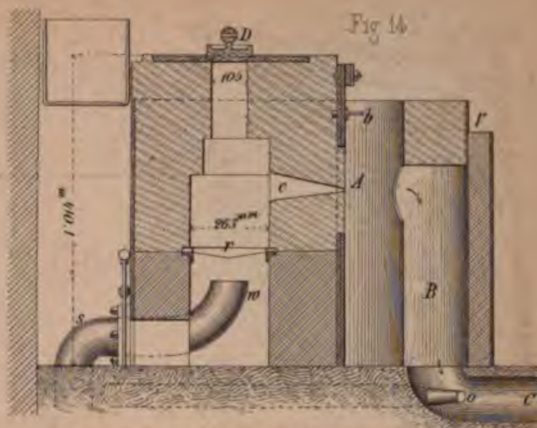




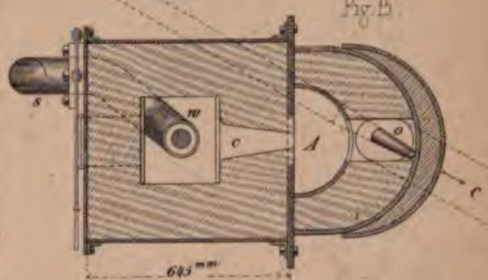


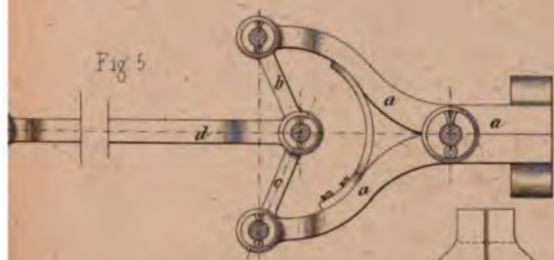


Werkzeuge zum Löthofen der Nordbahn in Wien.



Siederohr-Löthofen der Nordbahn Wien.





Höltzenbein's Ausziehzange









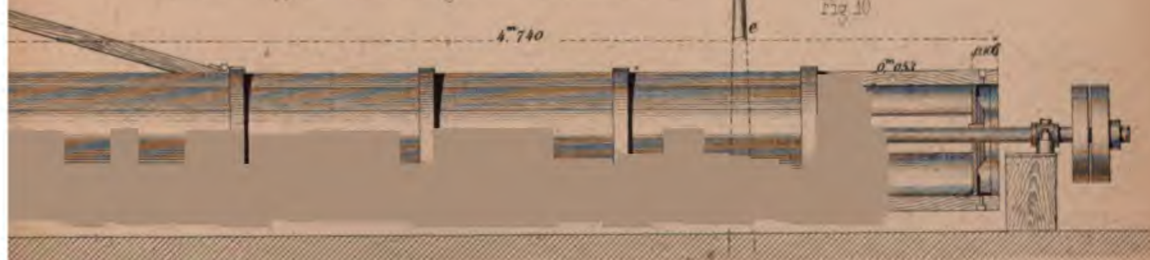
Werkzeug zum Abkratzen des Belegs

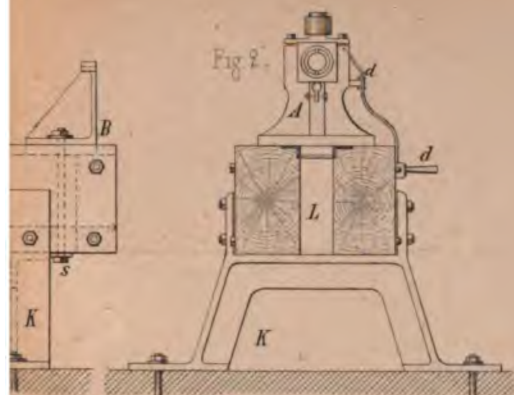


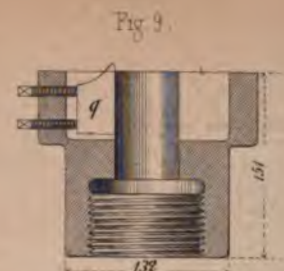


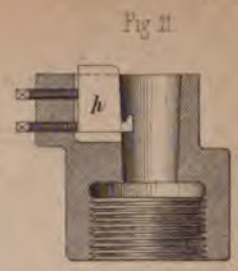
Rohrbürste.

Gaillard's Apparat zum Reinigen der Locomotivröhren.

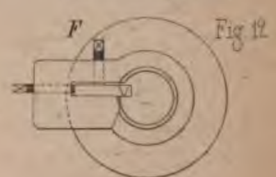


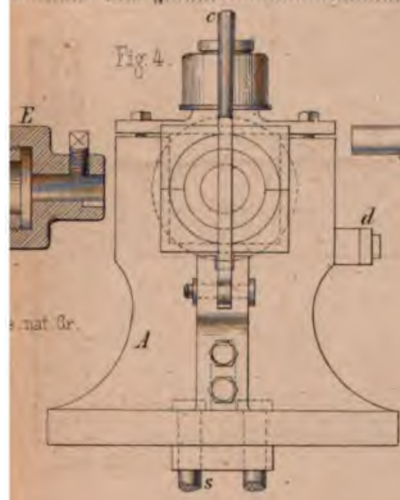


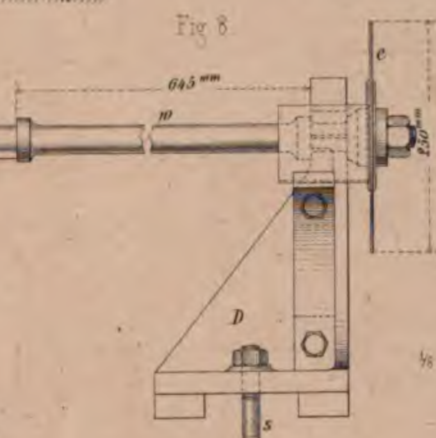


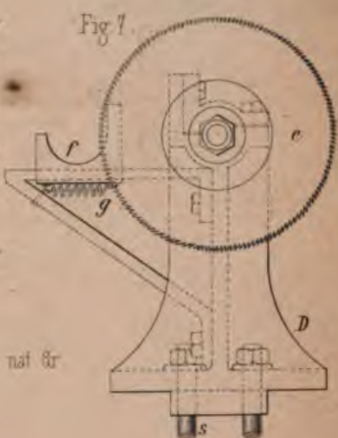








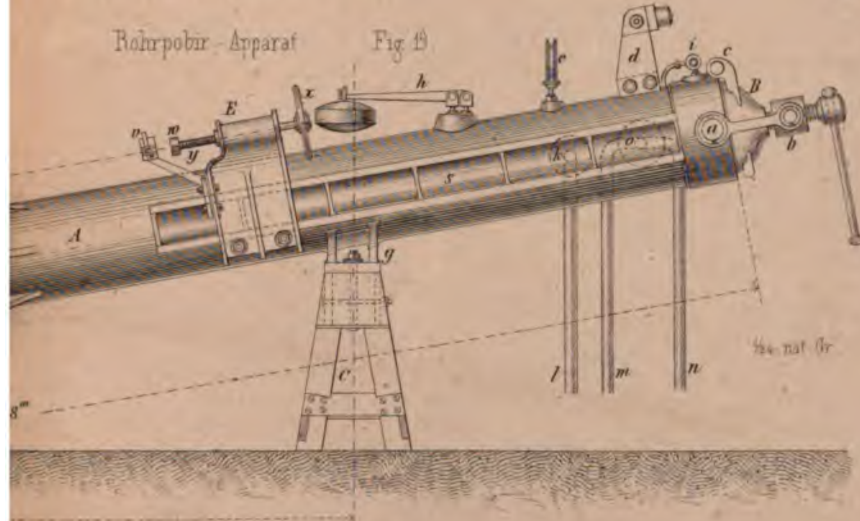


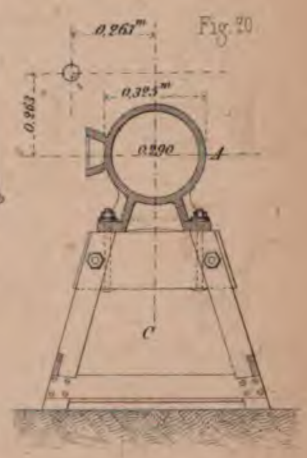


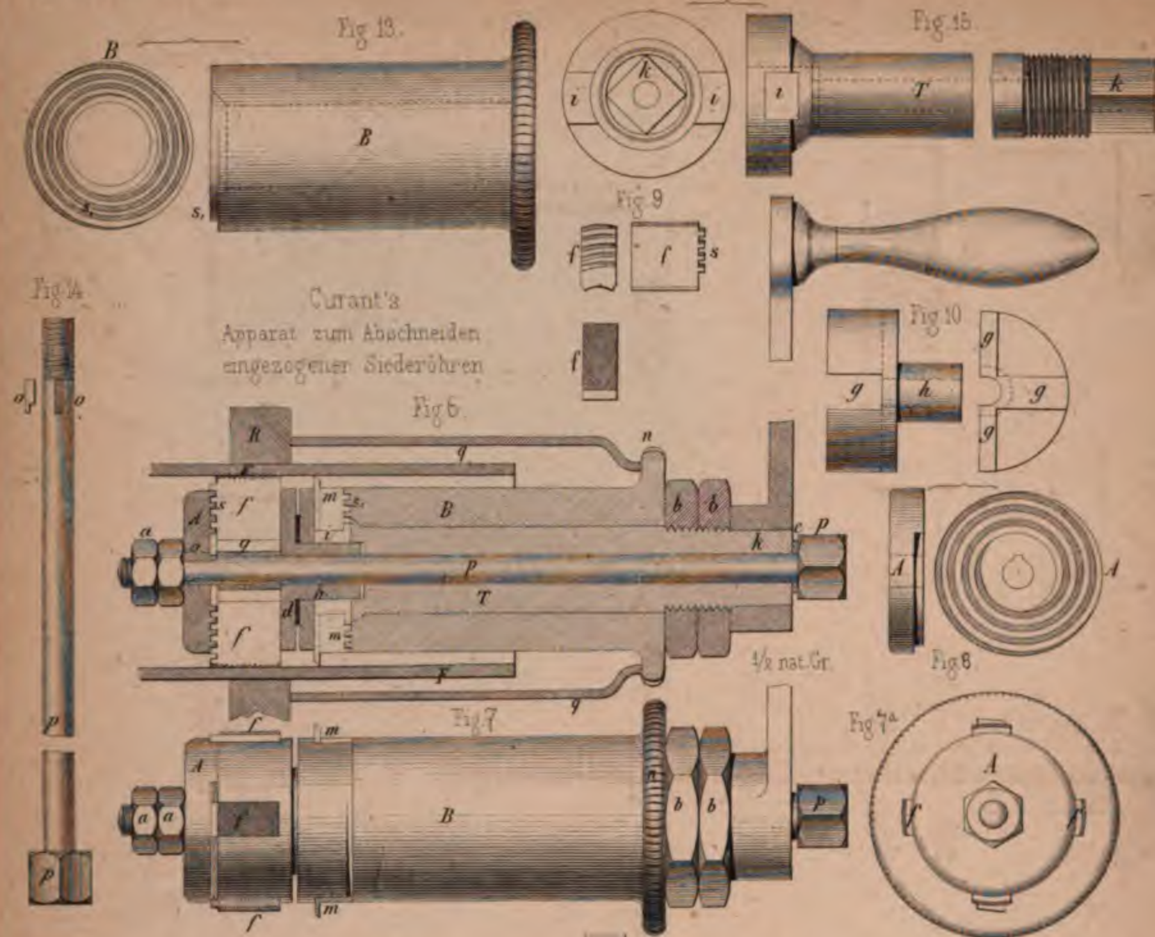
A. P. K. Ferdinands-Nordbahn
Siederohr-Werkstätte in Wien



Rohrpobir-Apparat







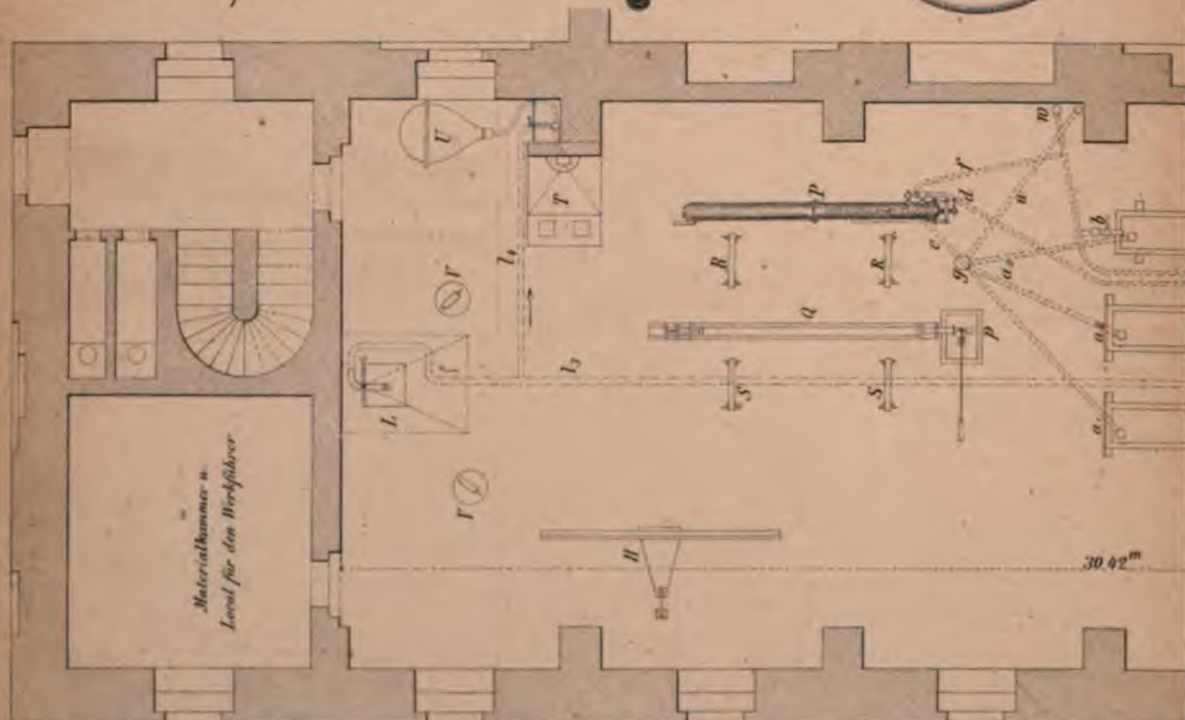
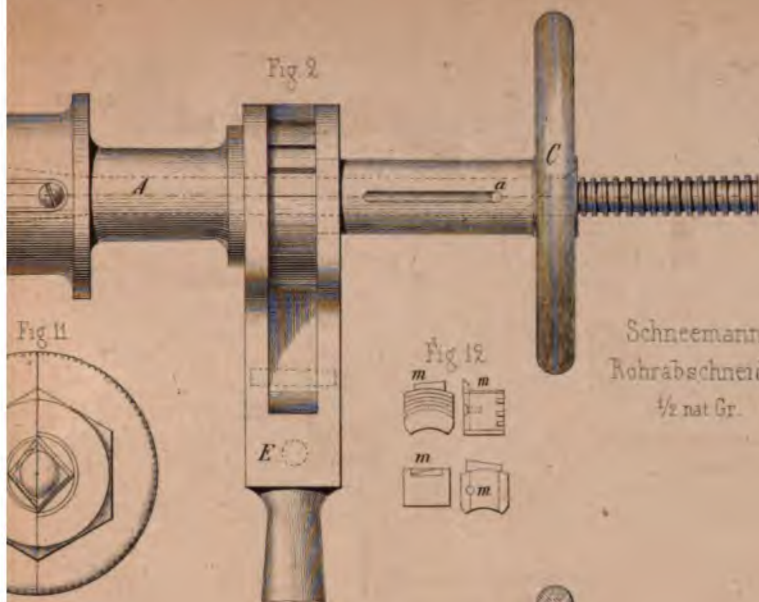


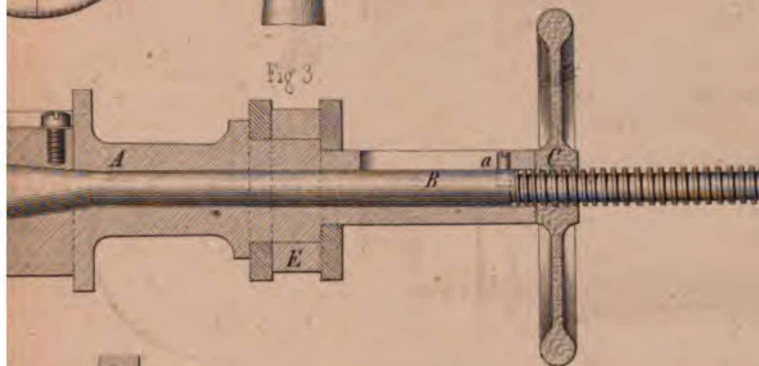
Fig. 1. Grundriß der Siederohrwerkstätte der Kaiser Ferd

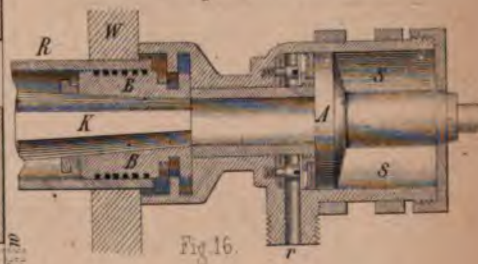
Lith. Anstalt v. F. Wirtz, Darmstadt



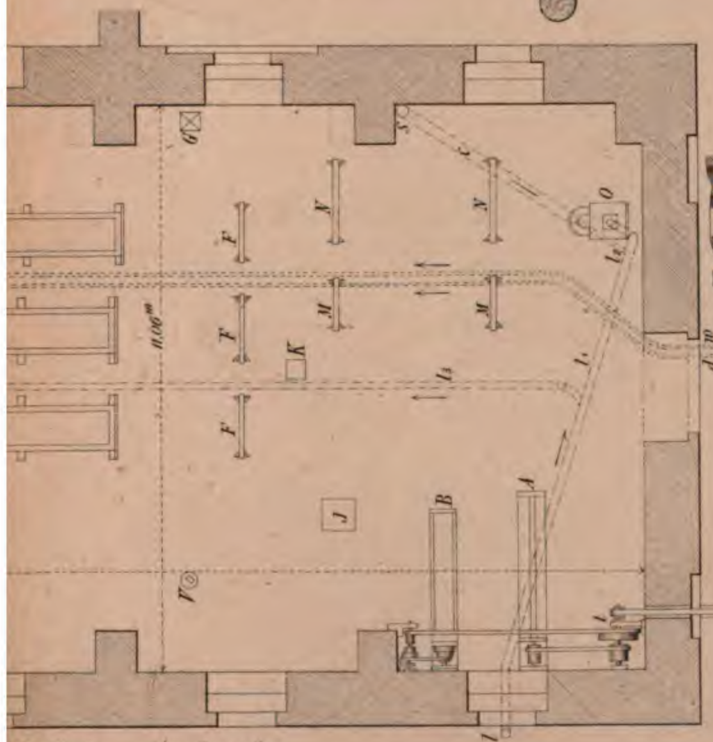


Schneemann's Rohrabschneider. ½ nat. Gr.





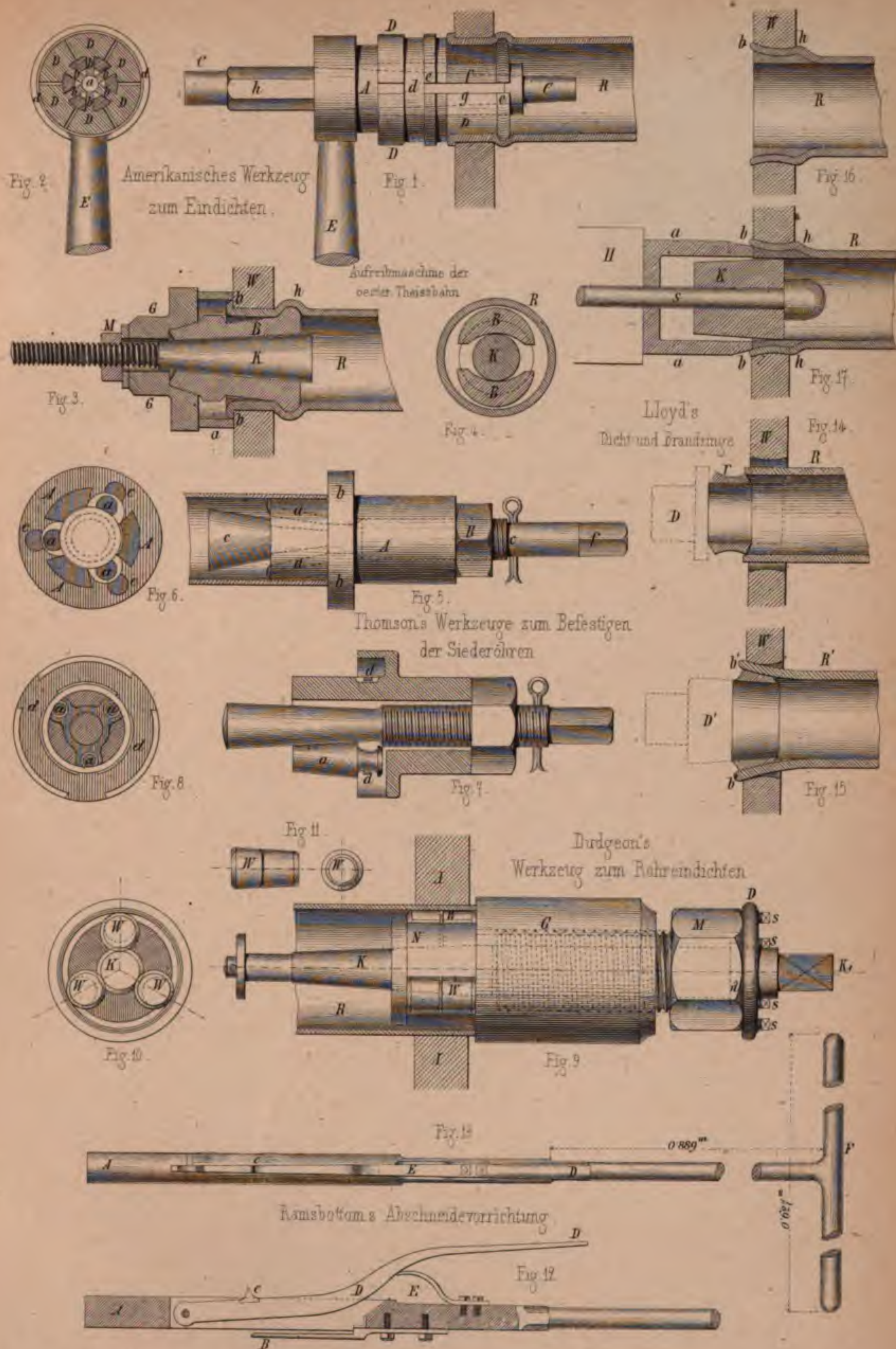
Tweddall's hydraulischer Dorn.





Barraclough's Kluppe zum Zerschneiden der Röhren

Nordbahn. 1/144 d. nat. Gr.


Amerikanisches Werkzeug zum Eindichten.
Aufreibmaschine der oester. Theissbahn
Lloyd's Dicht- und Brandringe
Thomson's Werkzeuge zum Befestigen der Siederöhren
Dudgeon's Werkzeug zum Rohreindichten
Ramsbottom's Abschneidevorrichtung
Fig. 1
Fig. 2
Fig. 3
Fig. 4
Fig. 5
Fig. 6
Fig. 7
Fig. 8
Fig. 9
Fig. 10
Fig. 11
Fig. 12
Fig. 13
Fig. 14
Fig. 15
Fig. 16
Fig. 17
0.889m

Zehntheilige Brück
im Centralbahnhof Wie

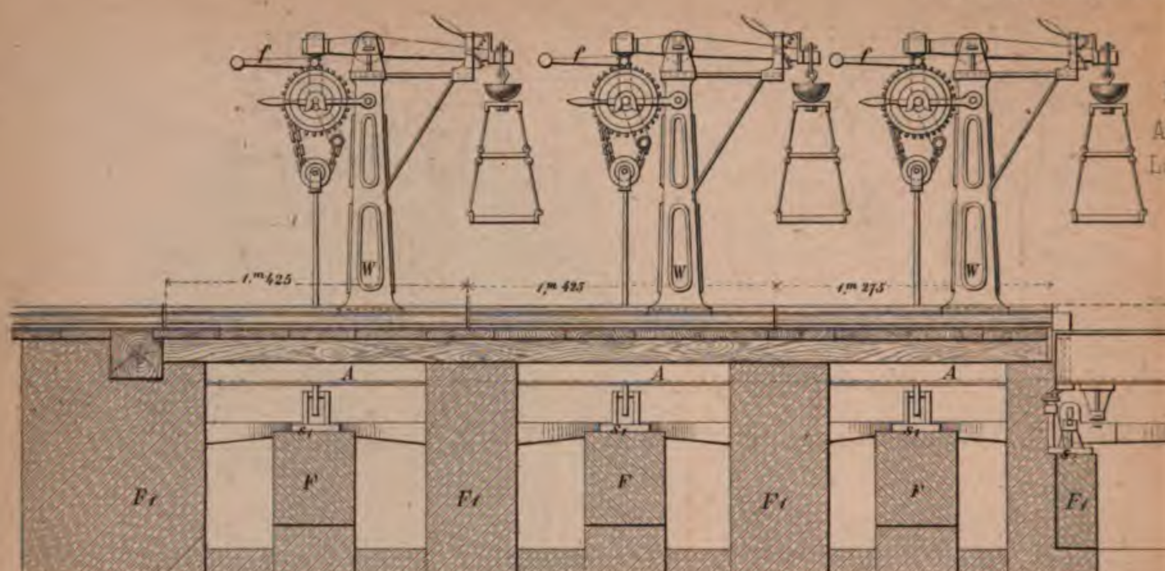
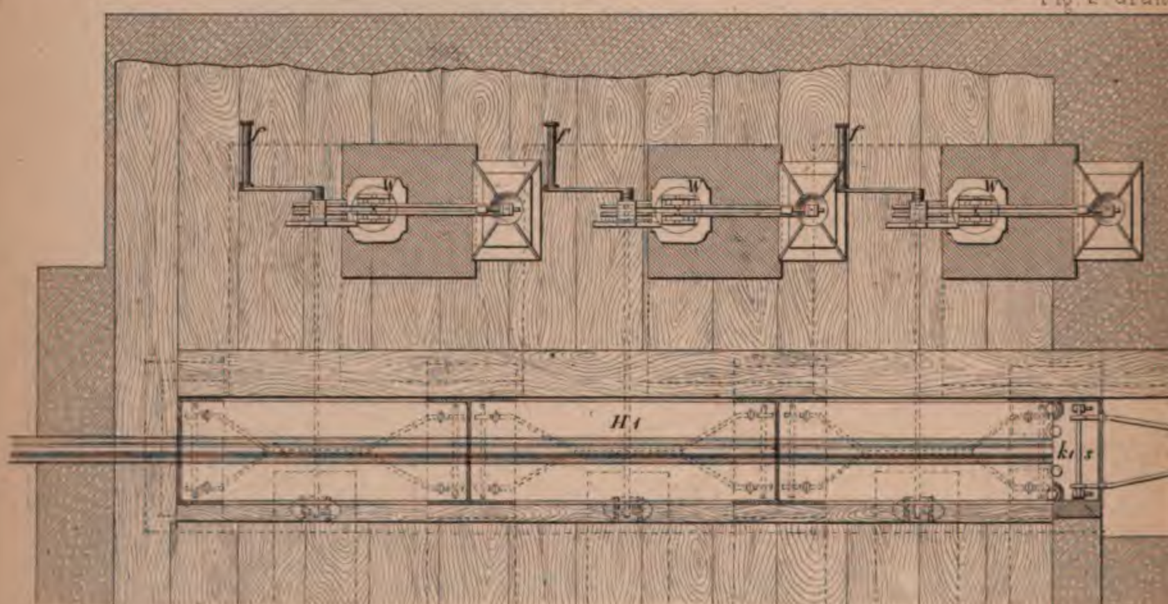
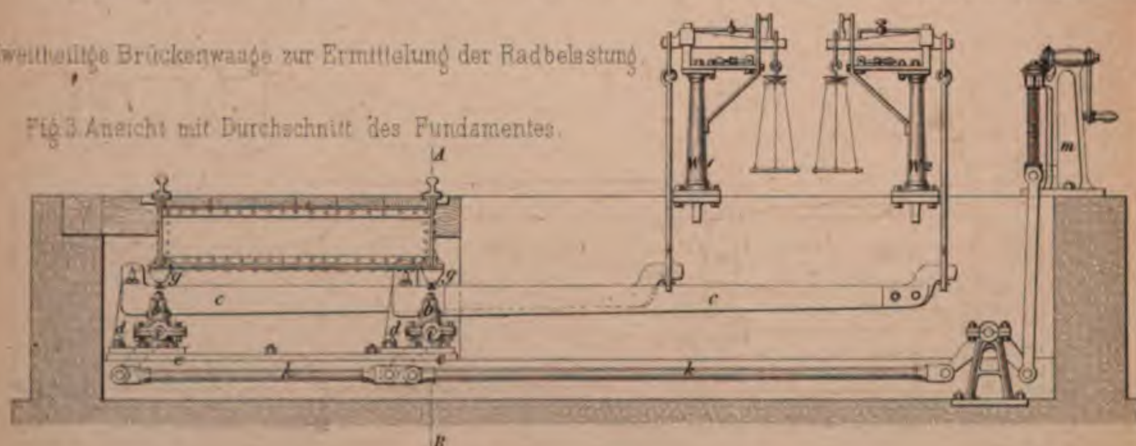


Fig. 2 Grund



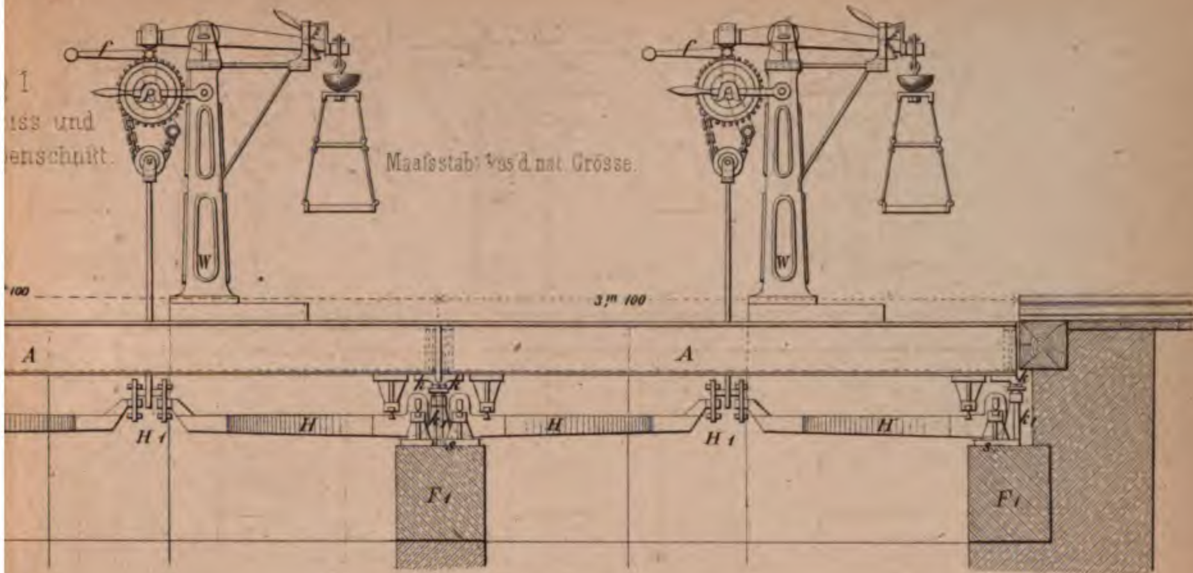
Zweitheilige Brückenwaage zur Ermittelung der Radbelastung.

Fig. 3. Ansicht mit Durchschnitt des Fundamentes.



Lith. Anst. v. F. Wirtz, Darmstadt.

waage für Locomotiven.
(Oesterr. Staatsbahn. Gesellsch.)



ss

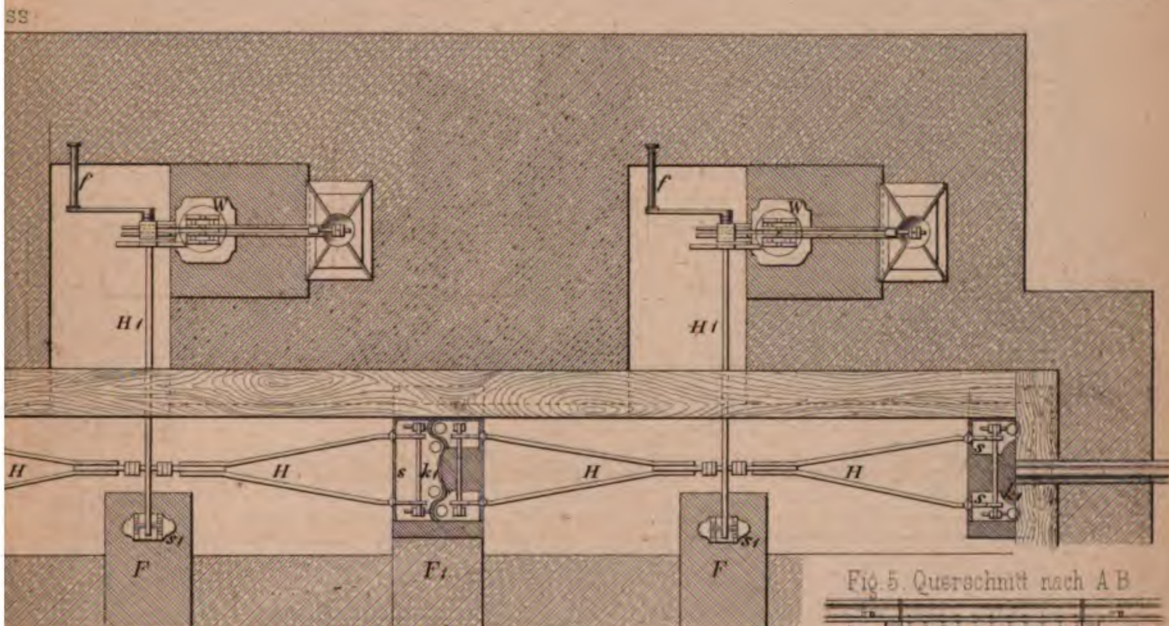


Fig. 4. Grundriss nach Fortnahme der Brücke.

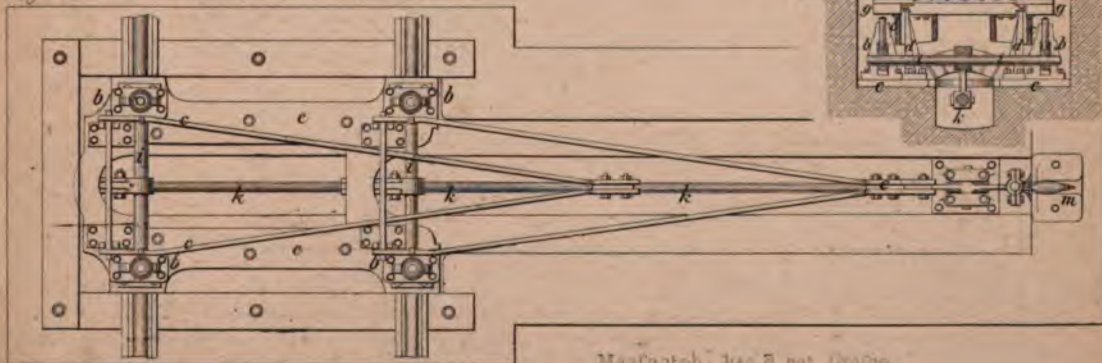


Fig. 5. Querschnitt nach A B.

Fig. 1

Schnitt a-b

Schnitt c-d

Schnitt

Fig. 4. Grundriss.

1/80 d. nat. Gr.

Fig. 14.

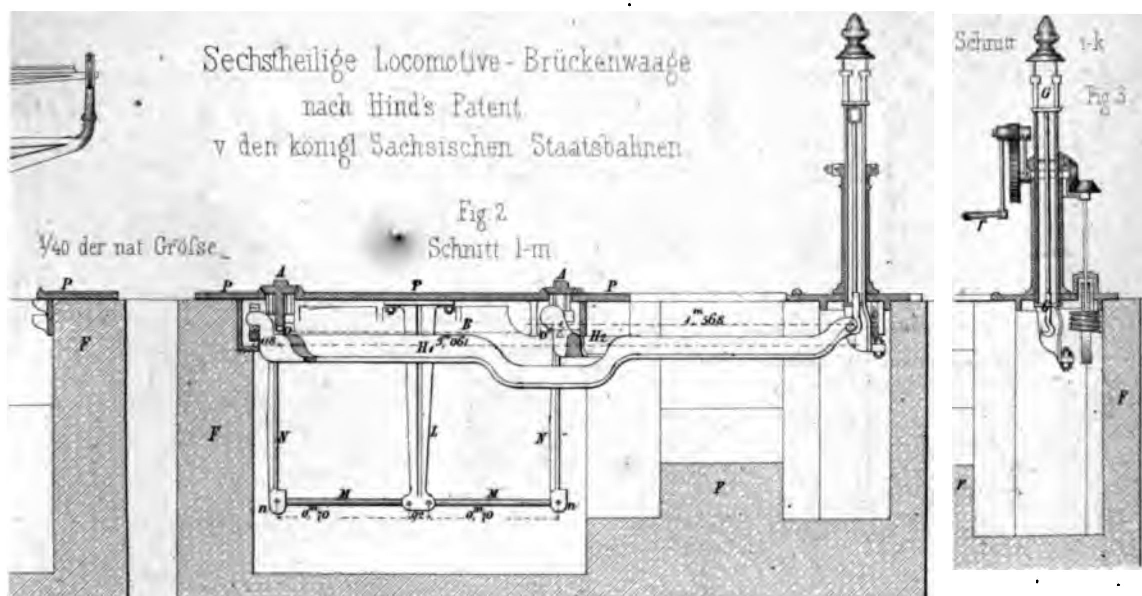
1/5 nat. Gr.

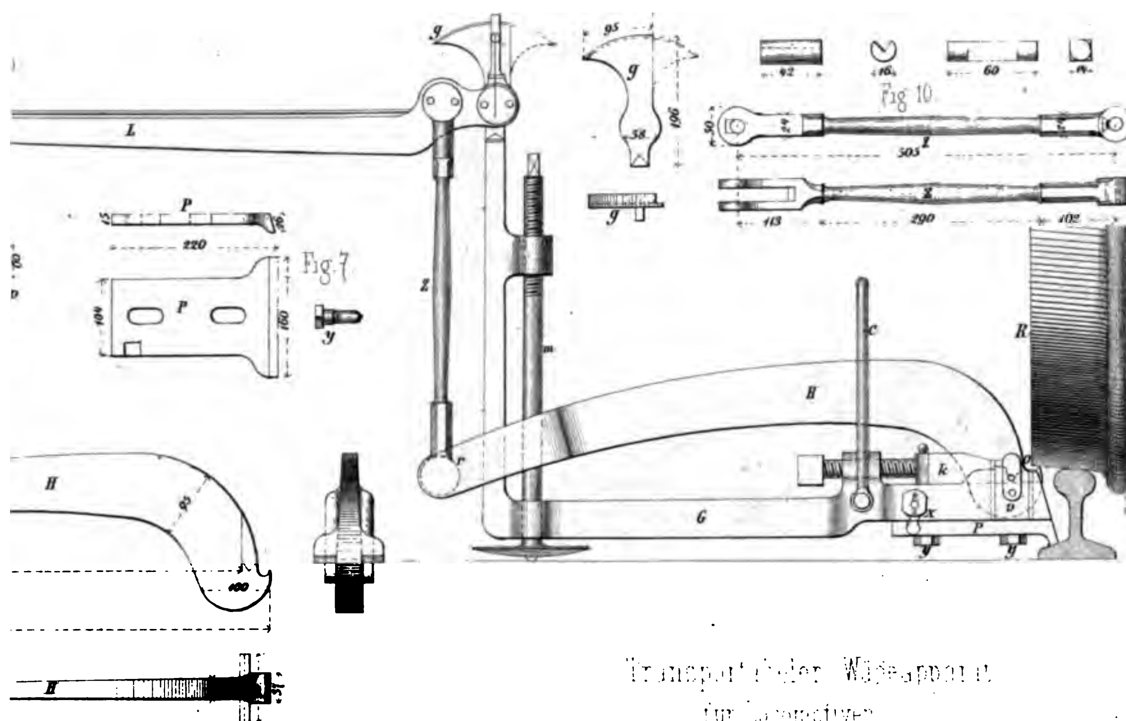
Fig. 12.

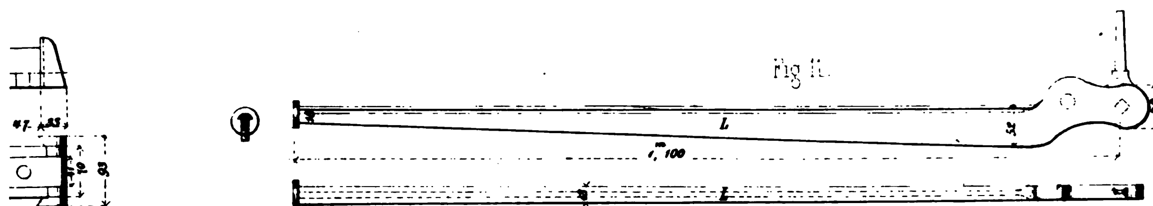
Fig. 13.

Fig. 8.

Fig. 6.







Lith. Anst. v. F. Wirtz, Darmstadt.

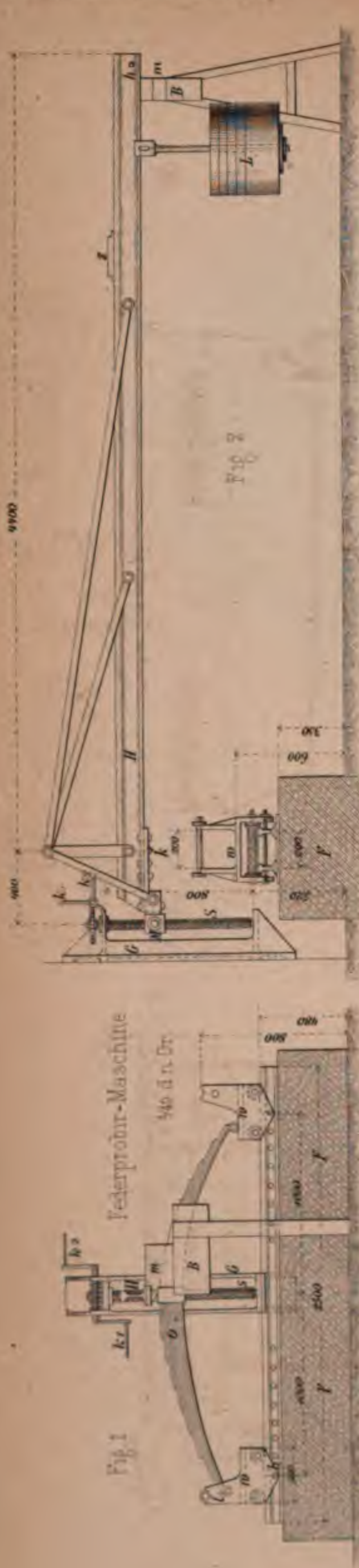


Fig. 3

Fig. 4

Zapfenschneid- und Schlitzmaschine von Graffenstaden

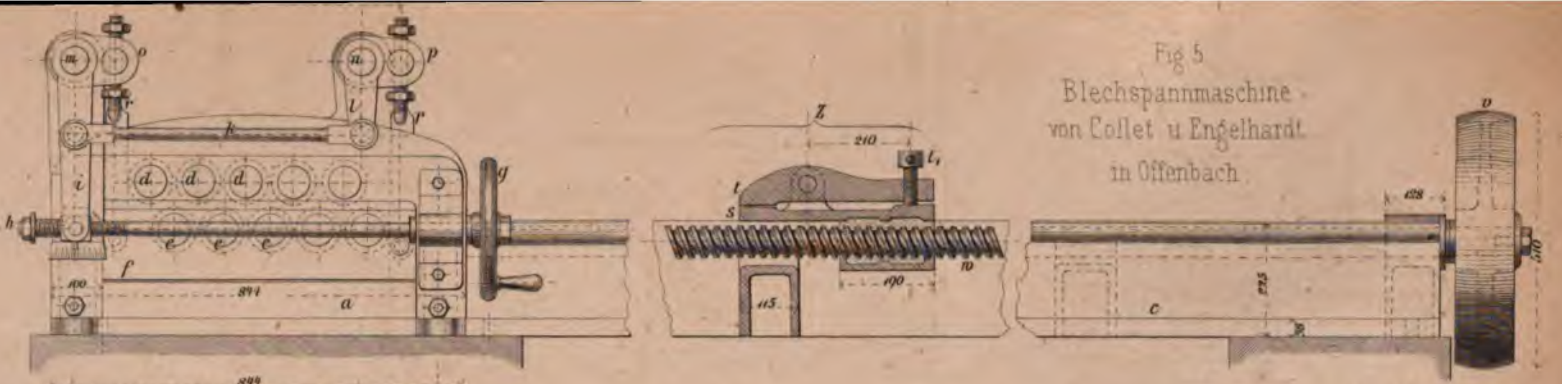
Maaßstab 1/10 d. nat. Gr.

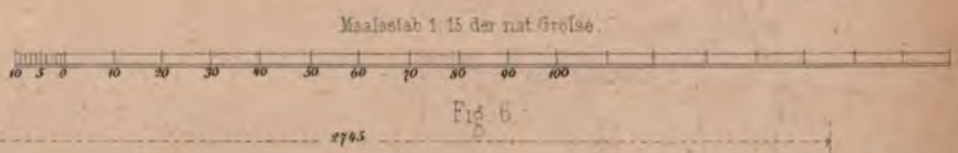
Lith. Anst. v. F. Wirtz Darmstadt.

Taf. XXX

Fig. 5

Blechspannmaschine von Collet u. Engelhardt in Offenbach.





Maalsstab 1:15 der nat. Grölse.

Fig. 6.

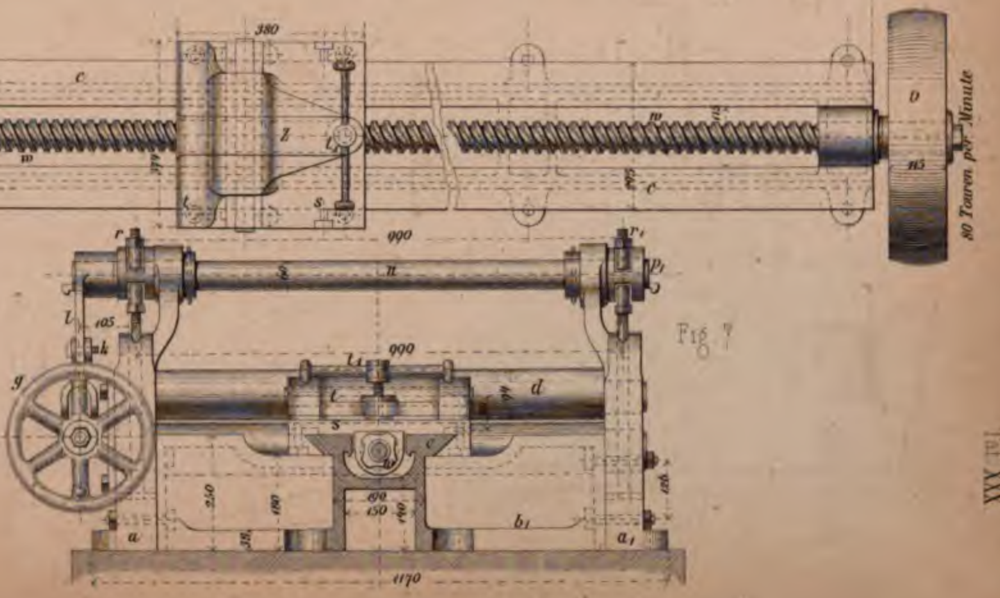
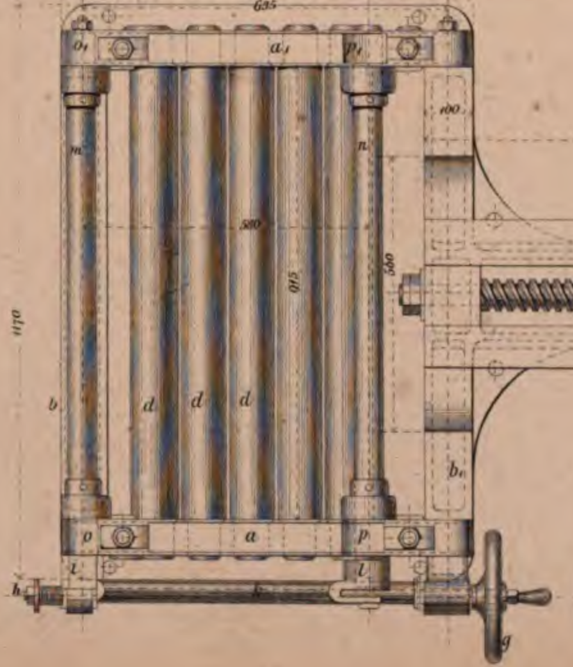
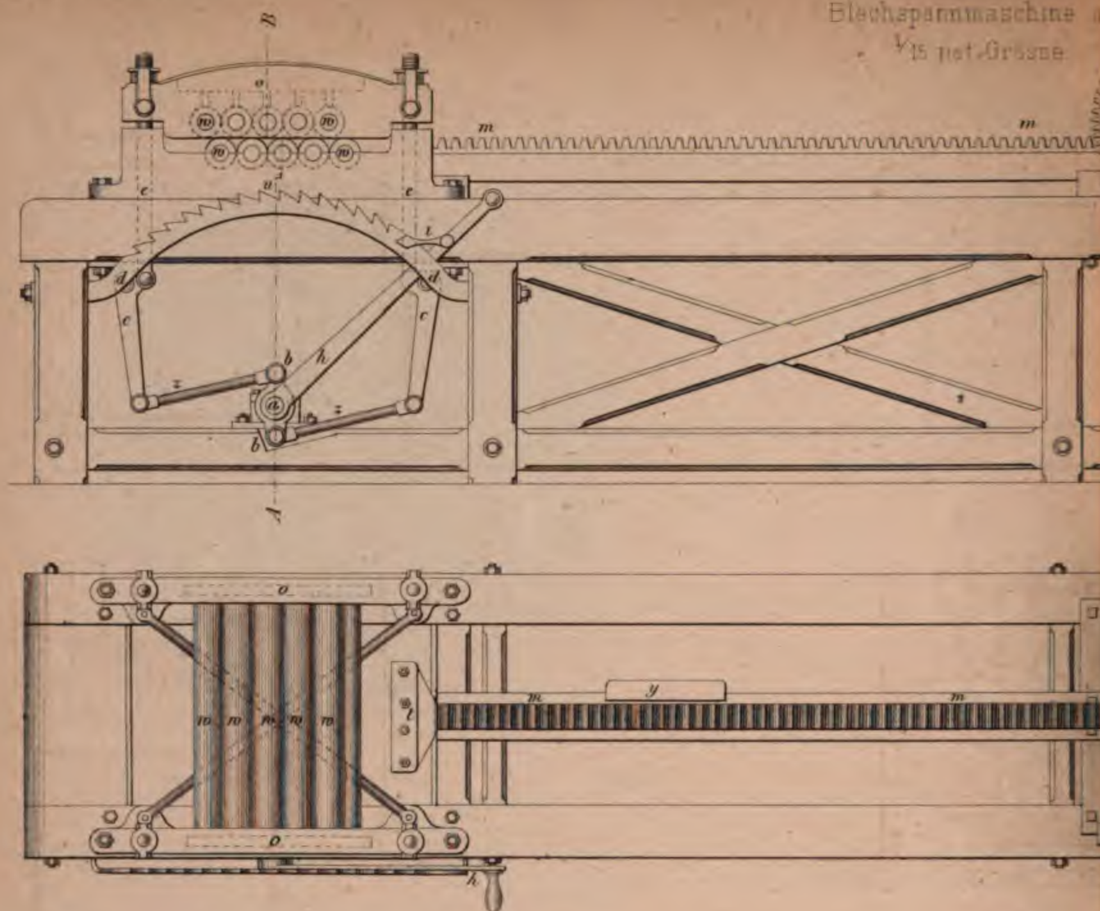


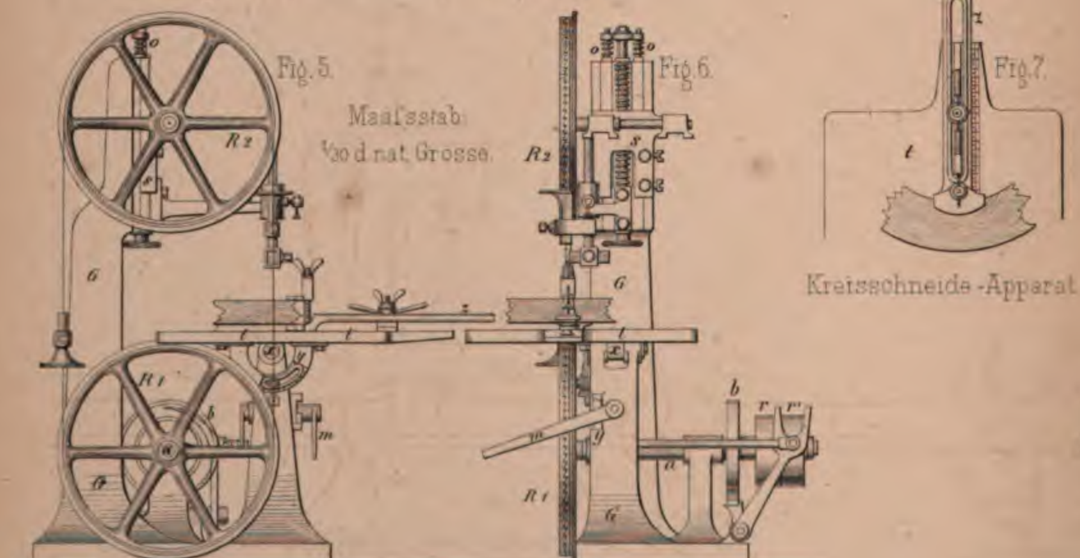
Fig. 7



Blechspannmaschine a[...]
1/15 nat. Grösse

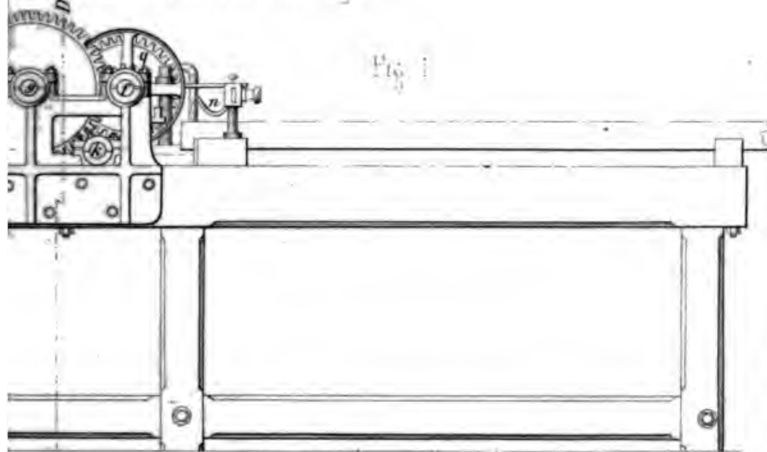


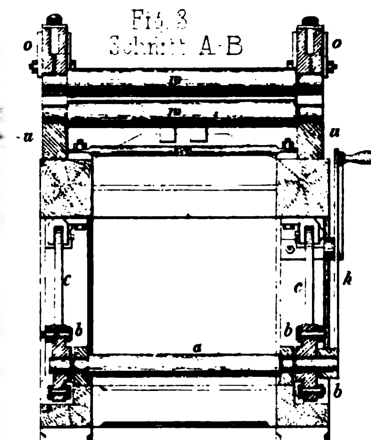
Bandsäge von Joh. Zimmermann in Chemnitz

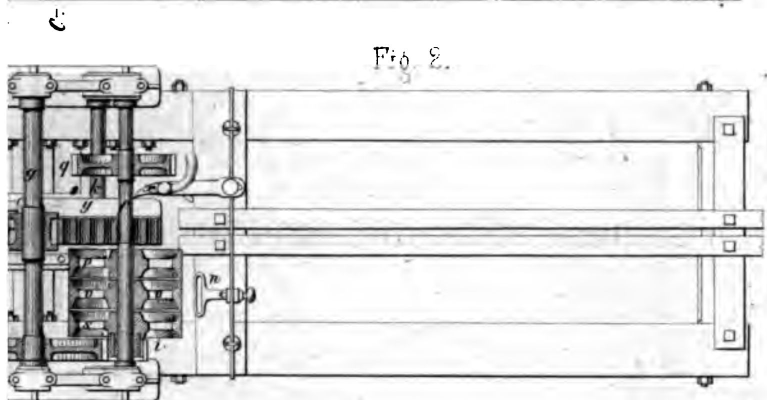


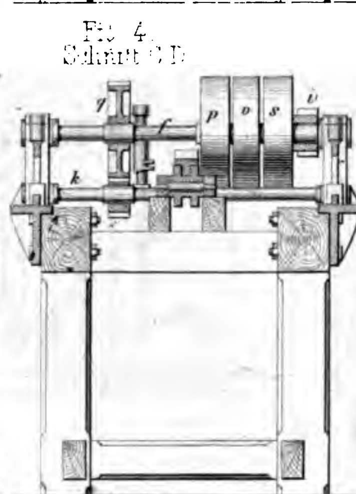
Kreisschneide-Apparat

der Maschinenfabrik Esslingen

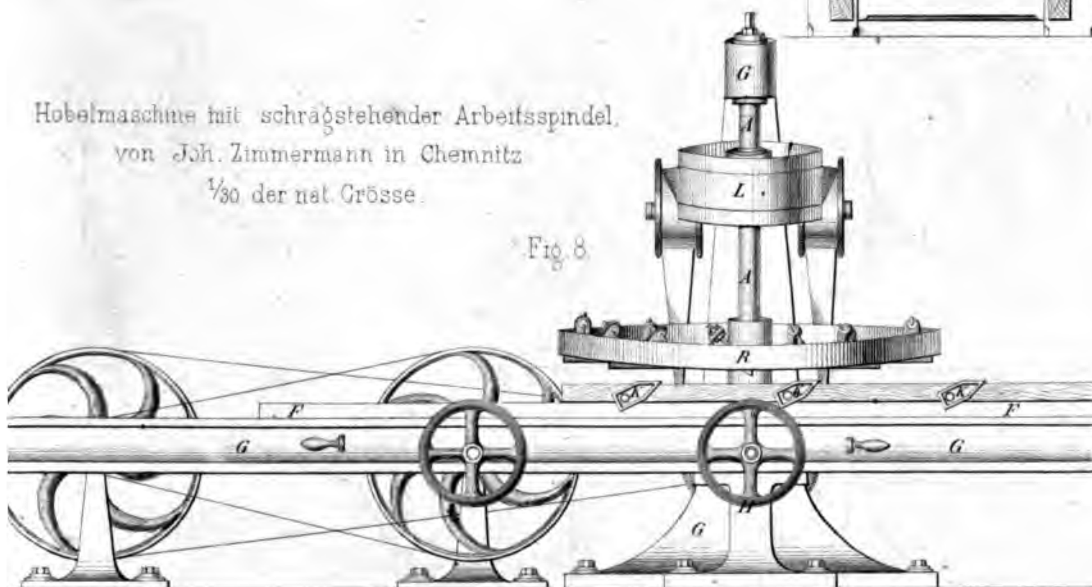




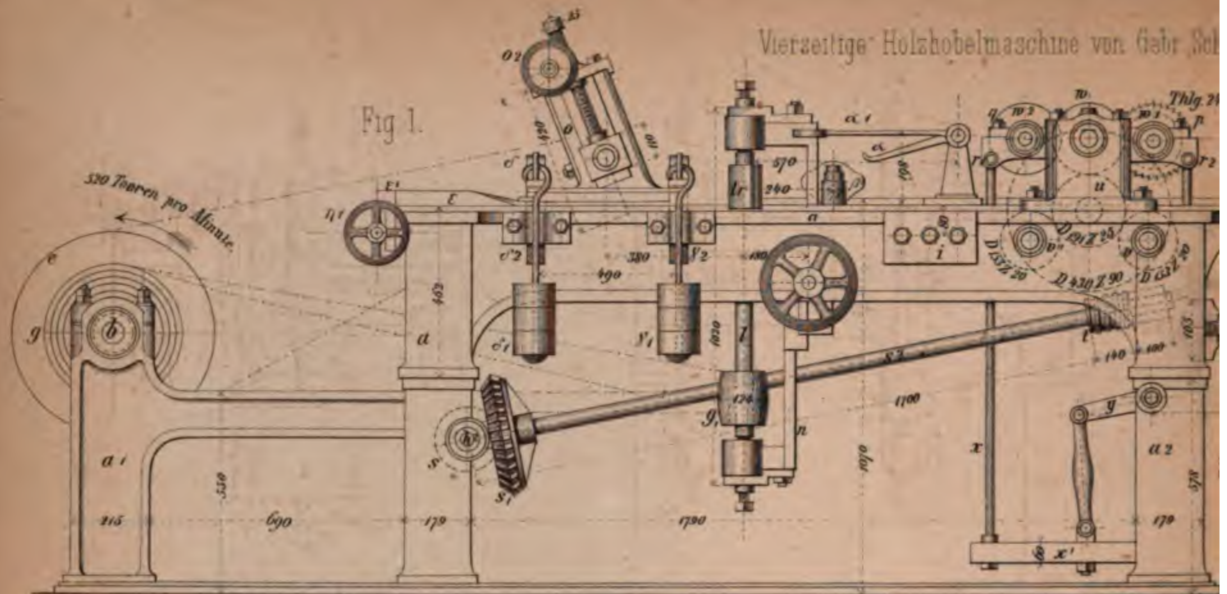




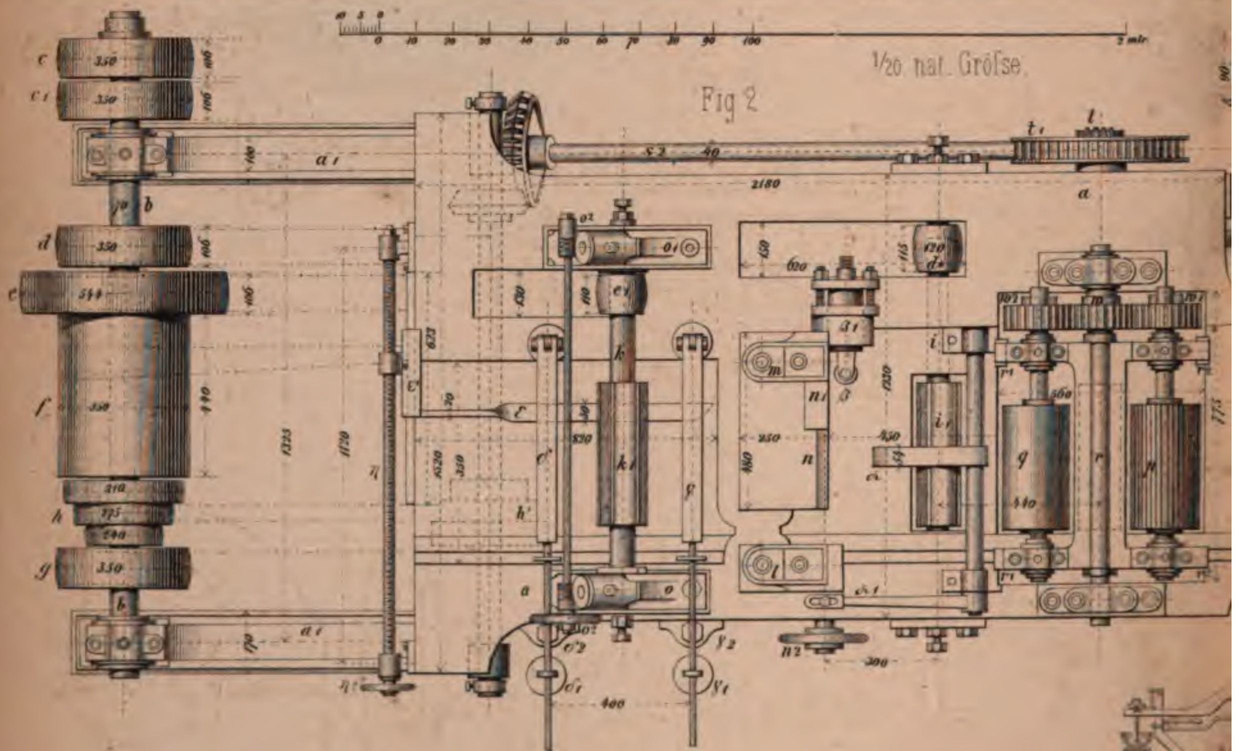
Hobelmaschine mit schrägstehender Arbeitsspindel,
von Joh. Zimmermann in Chemnitz
1/30 der nat. Grösse.



Vierseitige Holzhobelmaschine von Gebr. Sch



1/20 nat. Gröfse.



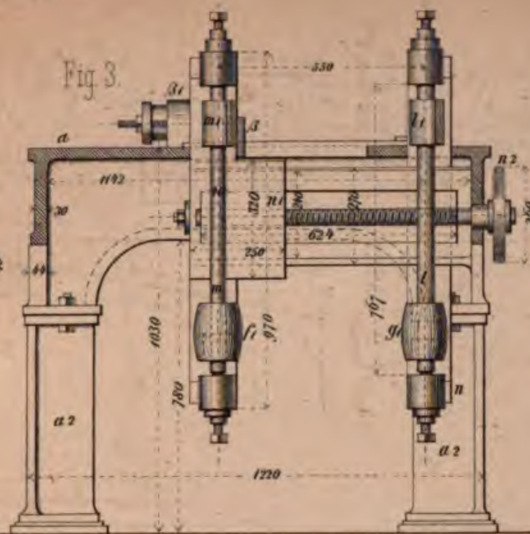
Lötapparat für Bandsägeblätter

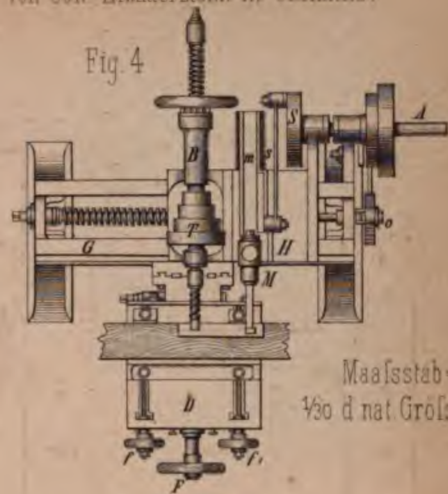




lz in Offenbach.

Bohr- und Stemmmaschine von Joh. Zimmermann in Chemnitz.



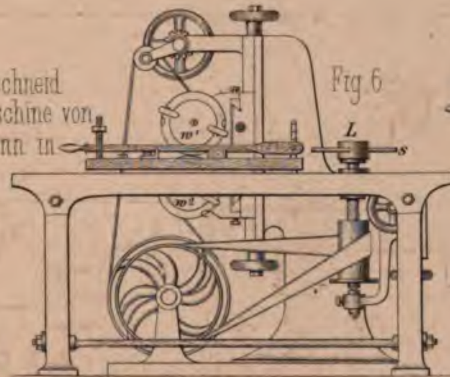


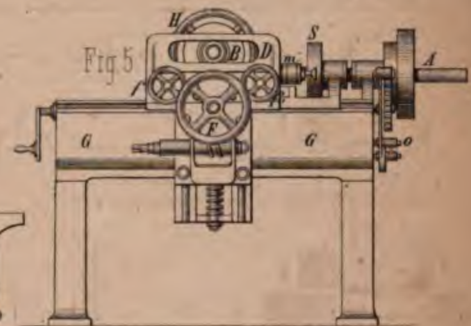
Maafsstab: 1/30 d. nat. Gröfse.



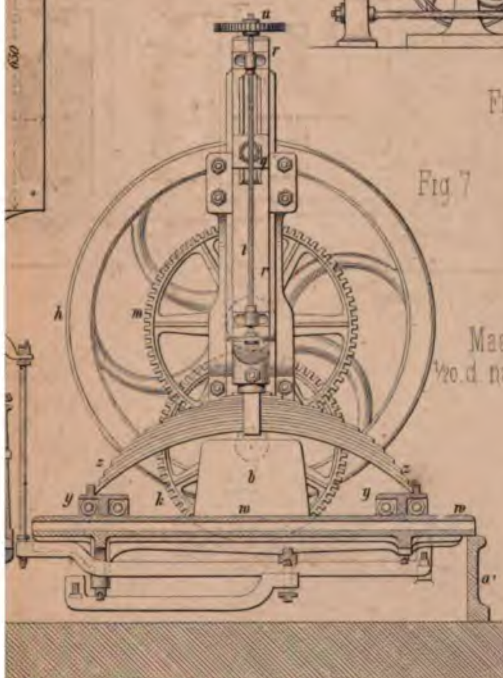
1/10 nat. Gr.

Kleine Zapfenschneid und Schlitzmaschine von Joh. Zimmermann in Chemnitz.

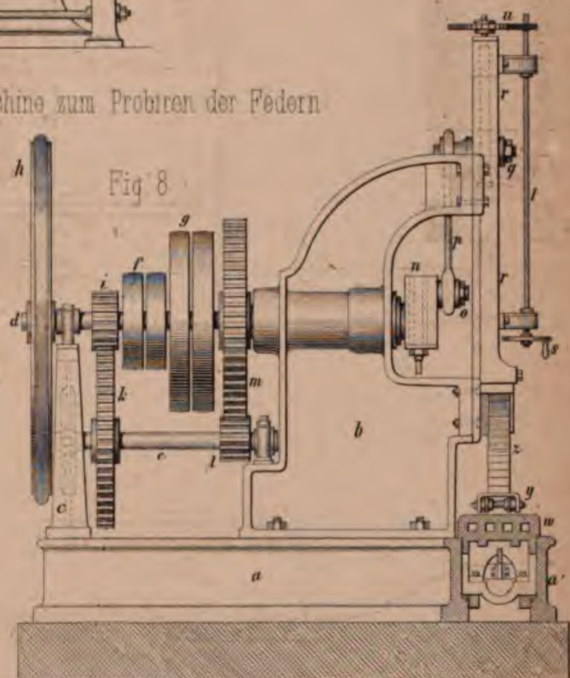




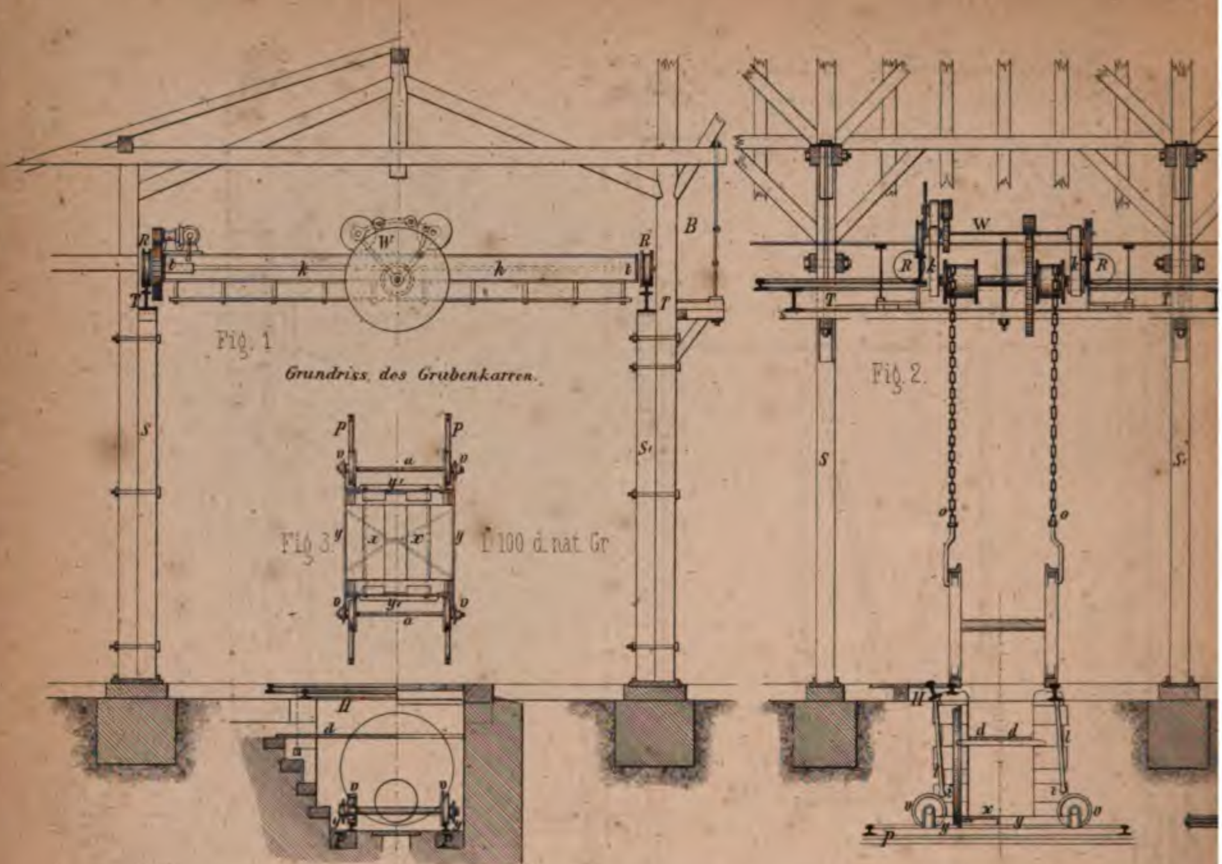
Frey's Maschine zum Probiren der Federn



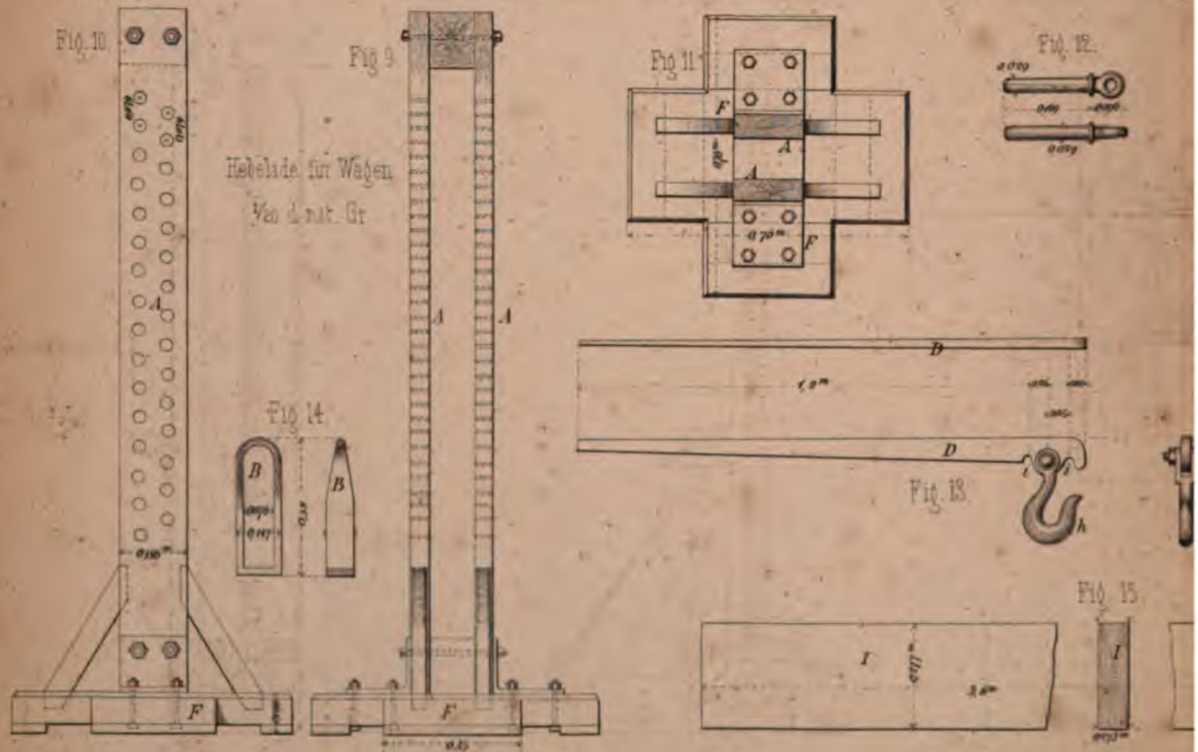
Maafsstab: 1/20 d. nat. Gröfse.

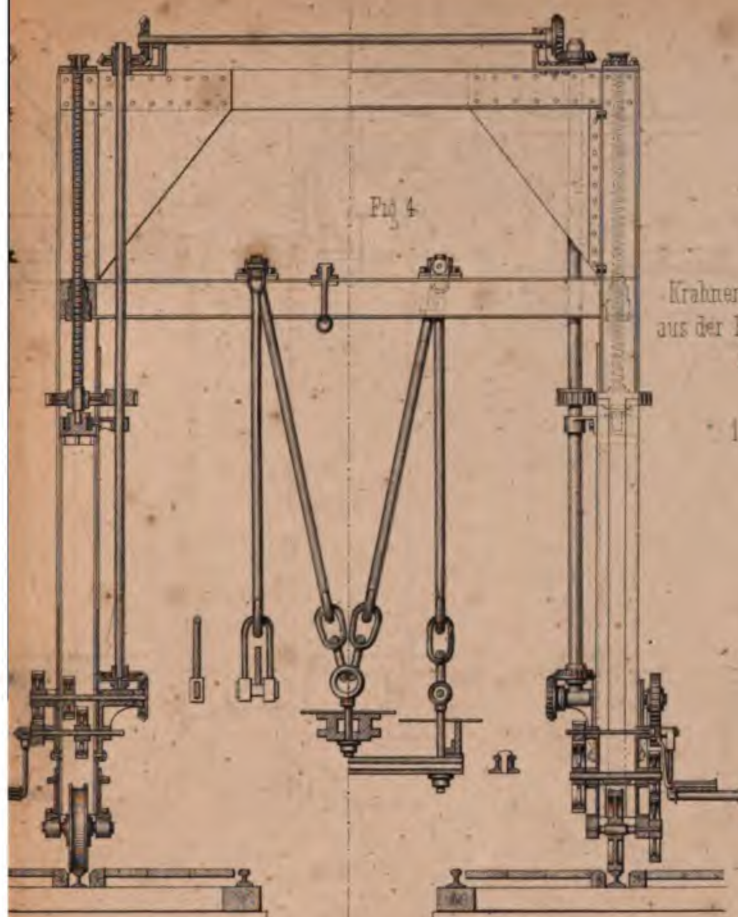


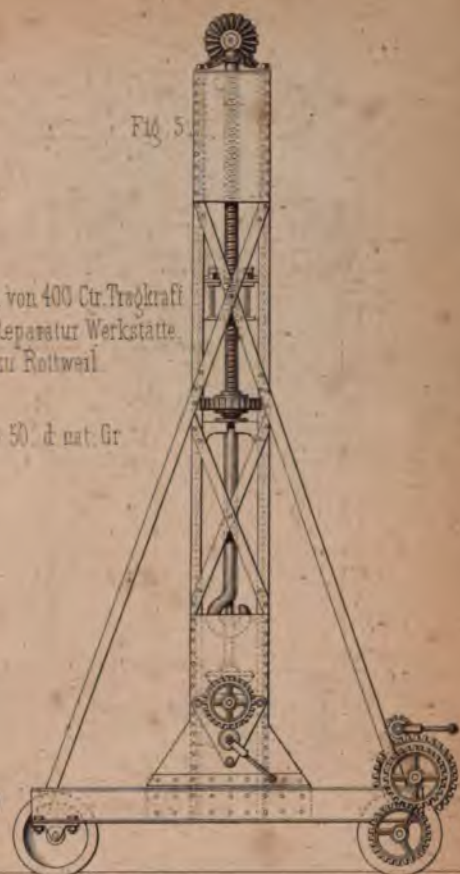
Lith. Anst. v. F. Wirtz, Darmstadt.



Laufkrahnen, Radgrube & Grubenkarren der Locomot. Werkstätte zu Chemnitz (Sächs. Staatsb.)

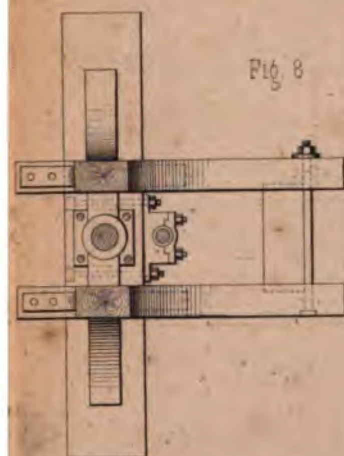






Krahnen von 400 Ctr. Tragkraft aus der Reparatur Werkstätte zu Rottweil.

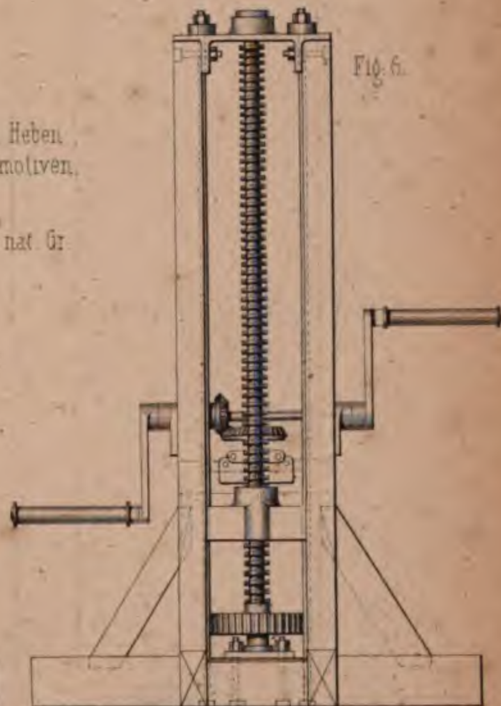
1 : 50. d. nat. Gr.





Bock zum Heben der Locomotiven.

1 : 25. der nat. Gr.

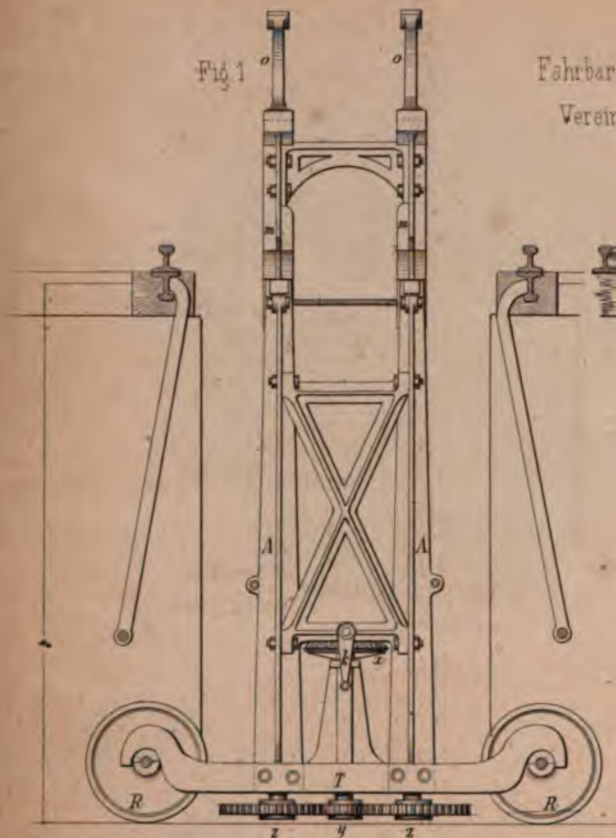


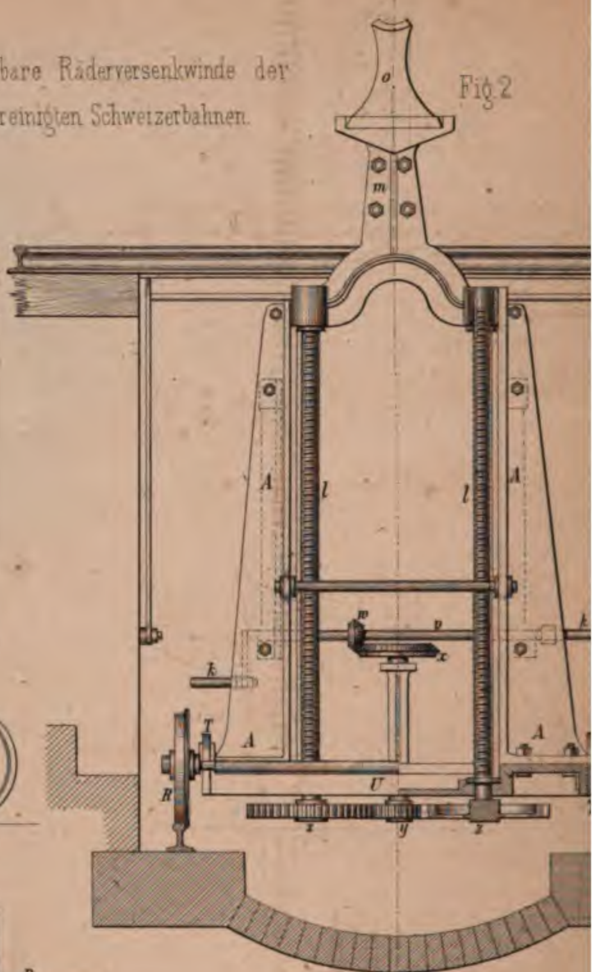
Lith. Anst. F. Wirtz, Darmstadt.

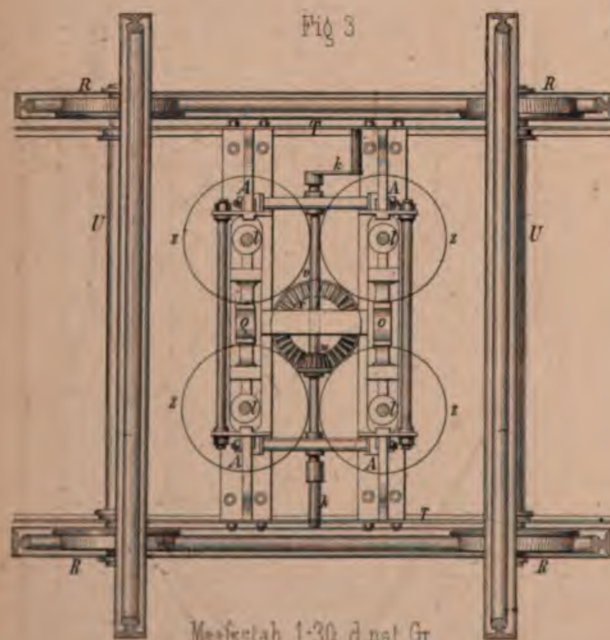


Hebevorric

Fahrbare Räderversenkwinde der Vereinigten Schweizerbahnen.







Maassstab 1:30 d. nat. Gr.

Schraubenwinde von A



Fig. 4.

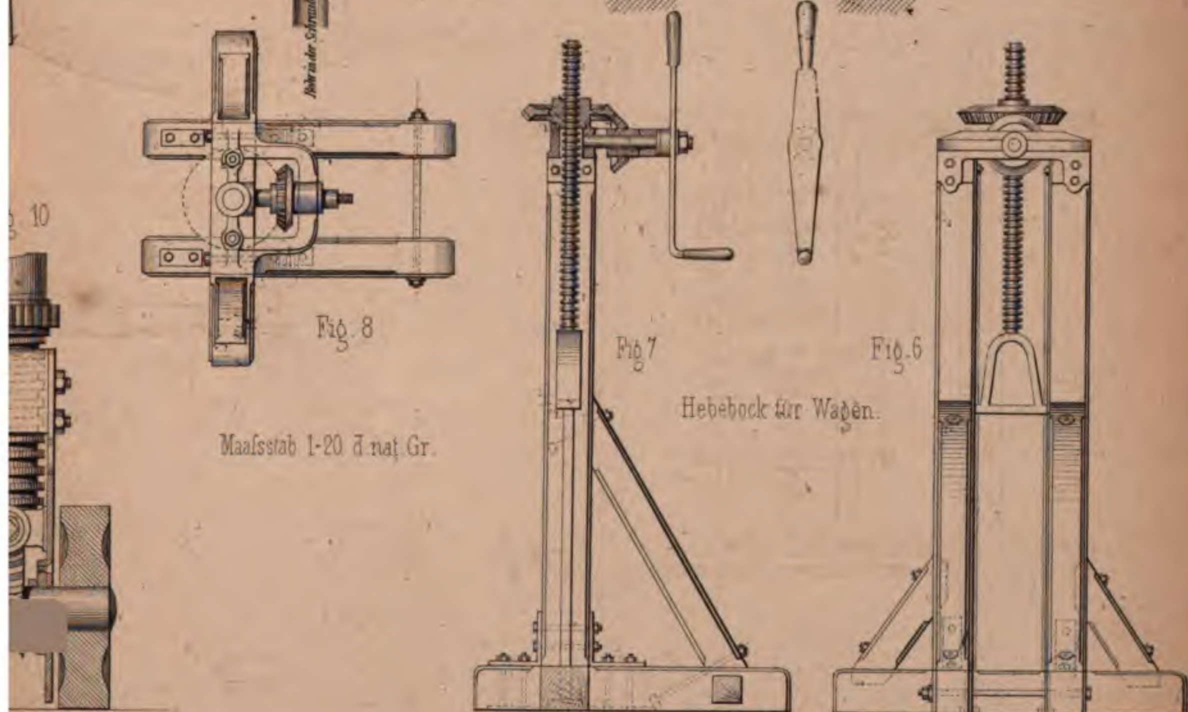
Feste Rädersenkwinde der Vereinigten Schweizerbahnen

Fig. 5.

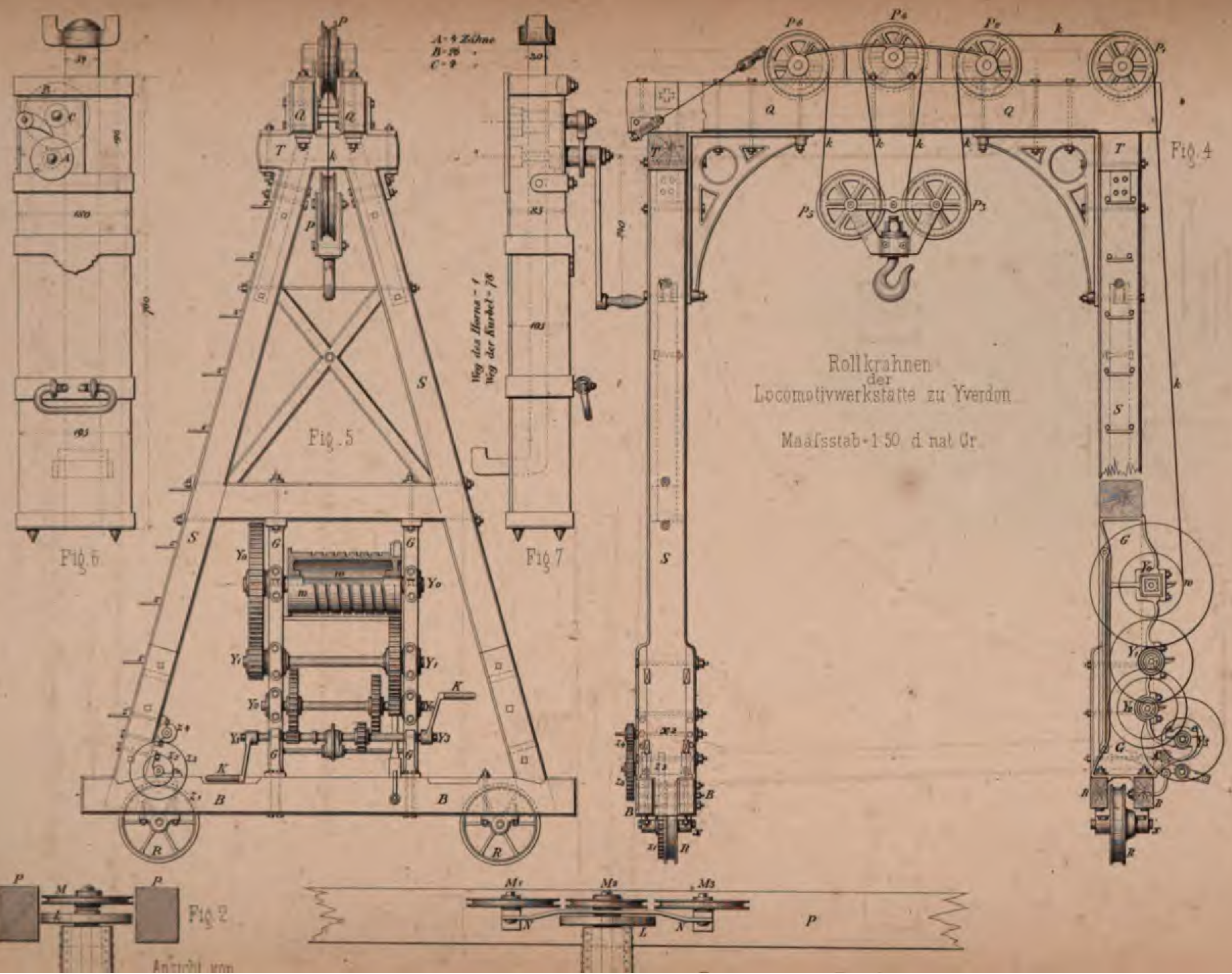
Maafsstab 1:25 d. nat. Gr.

Rad 90 Zähne.

Kolben 10 Zähne.



Lith. Anst. v. F. Wirtz, Darmstadt.


Fig. 4
Rollkrahnen
der
Locomotivwerkstätte zu Yverdon
Maafsstab 1:50 d. nat. Gr.
Fig. 5
Fig. 6
Fig. 7
A = 4 Zähne
B = 16
C = 9
Weg des Horns = 1
Weg der Kurbel = 78
Fig. 2
Ansicht von

Maafsstab - 1:30. d. nat. Gr.

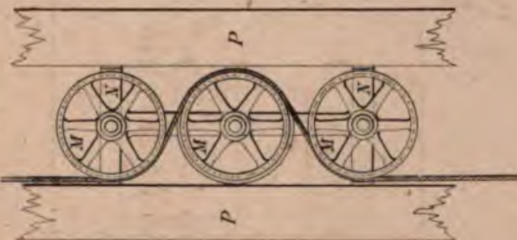
Schnitt 1-2

Seiten-Ansicht

Schnitt 3-4

Fig 3





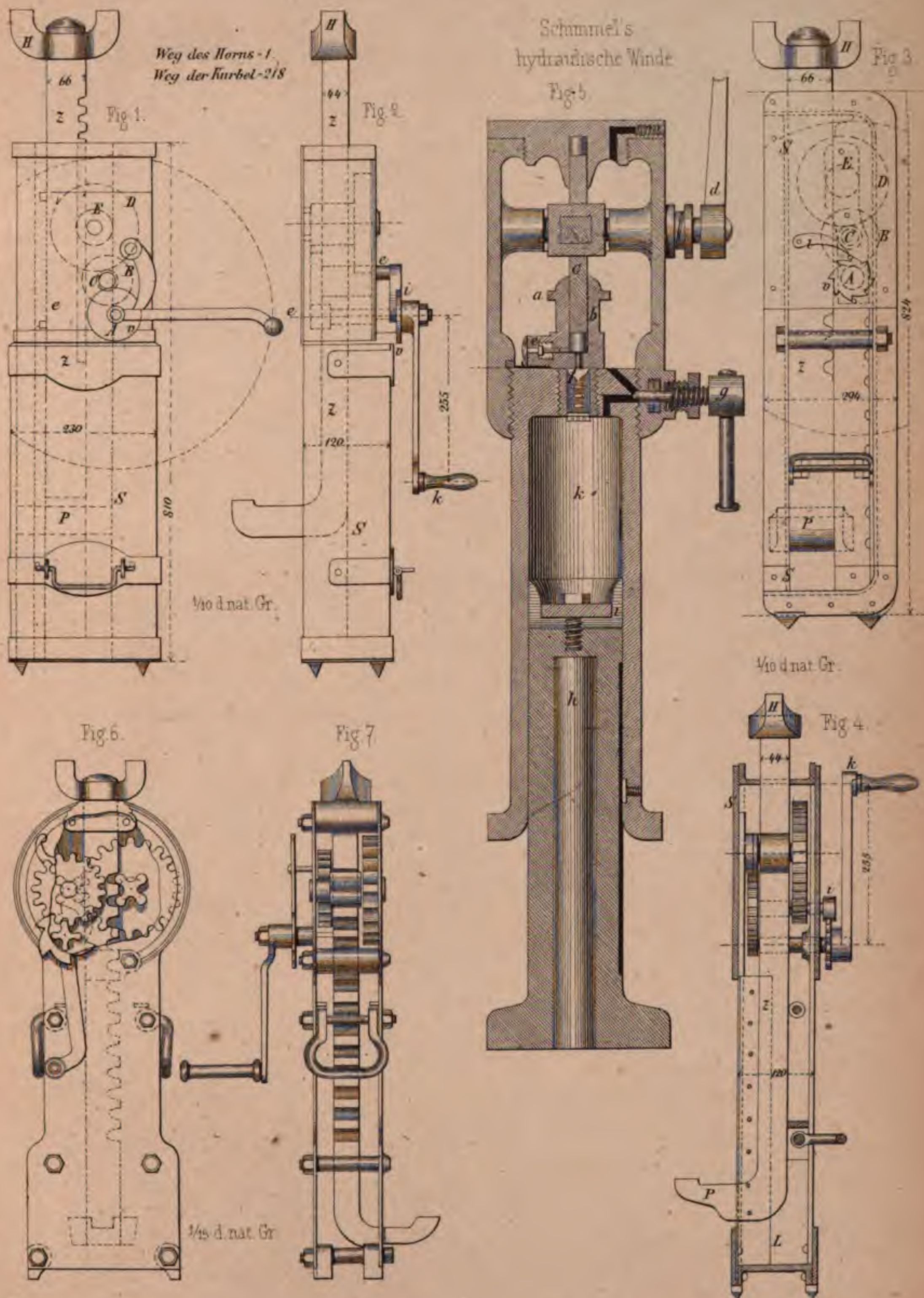
Obere Seilrollen mit Führungsseilen.

A

B

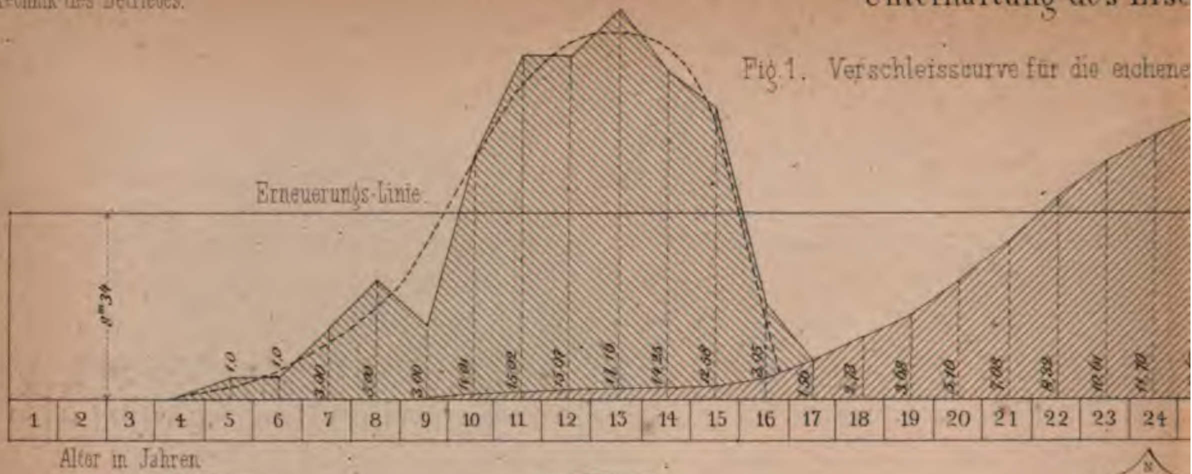
Lith. Anst. F. Wirtz, Darm

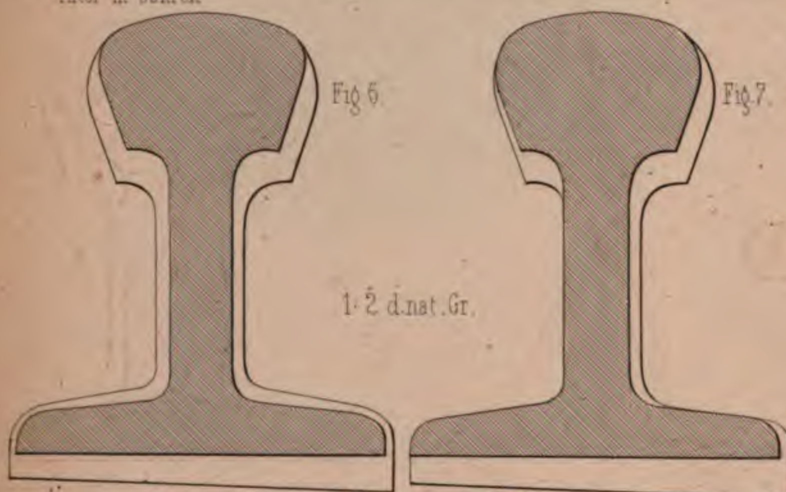
Locomotivwinden

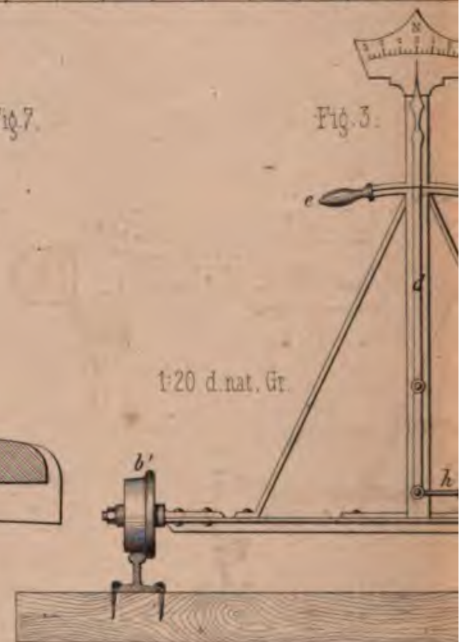


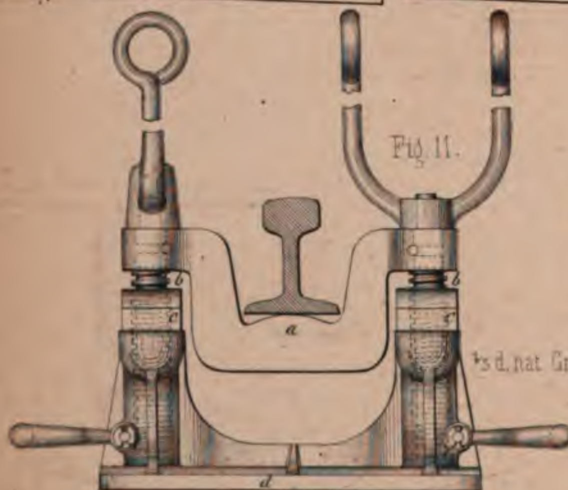
Lith. Anstalt v. F. Wirtz, Darmstadt.

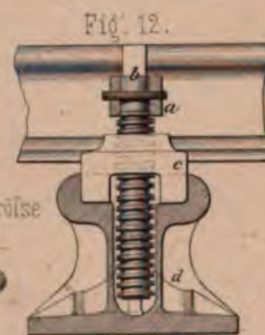
Unterhaltung des Eise

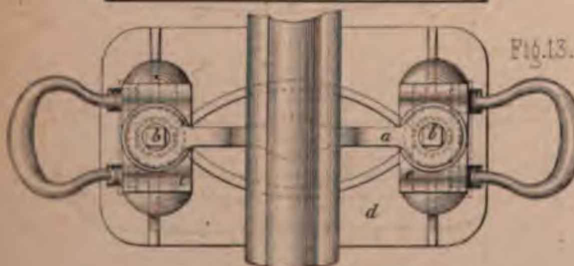








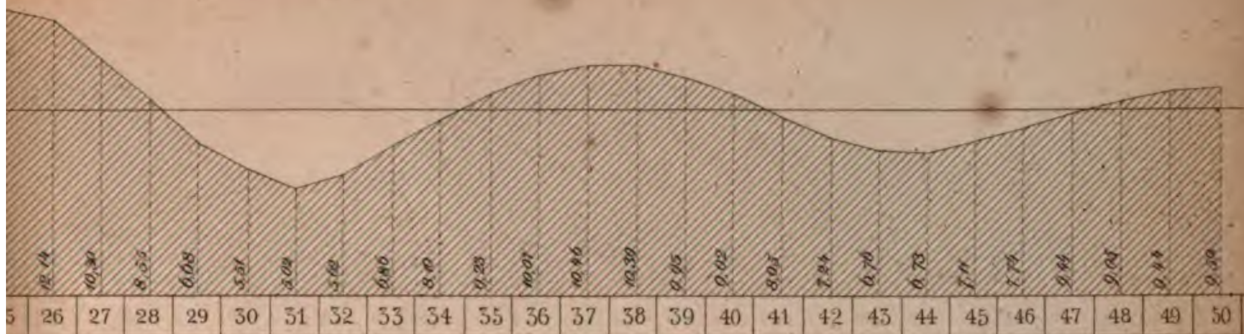






Vojacek's Hebeapparat für Bahngleis

Schwellen der Belg. Eisenbahnen.



Kayser's fahrbares Spur-u. Überhöhungsmaass.

1:10 d. nat. Gr. Fig. 5.



Verschiebbares Rad a

Fig. 4.

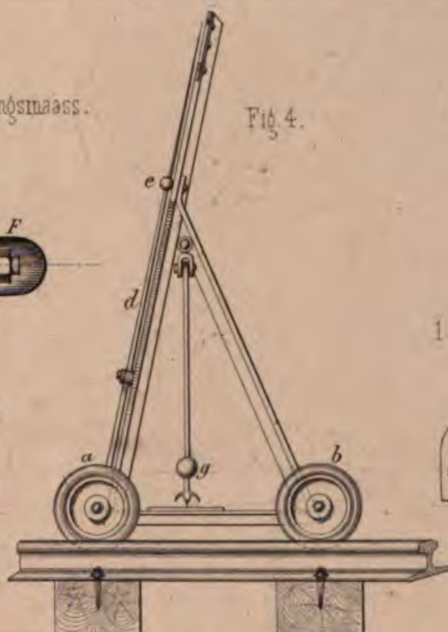
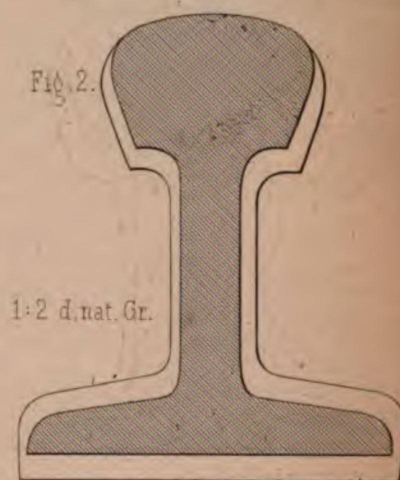


Fig. 2.



1:2 d. nat. Gr.

Fig. 8.

Nivelleur von de Bergue.

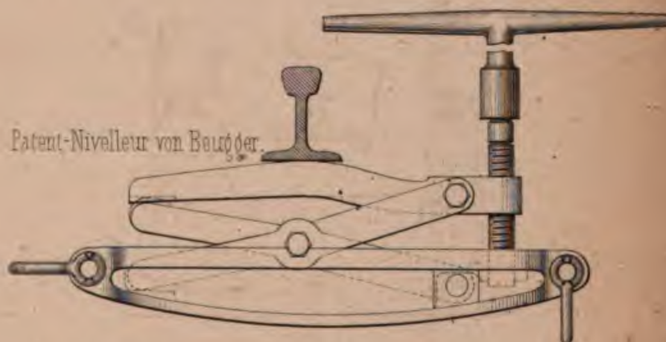


Fig. 14.



Fig. 9.

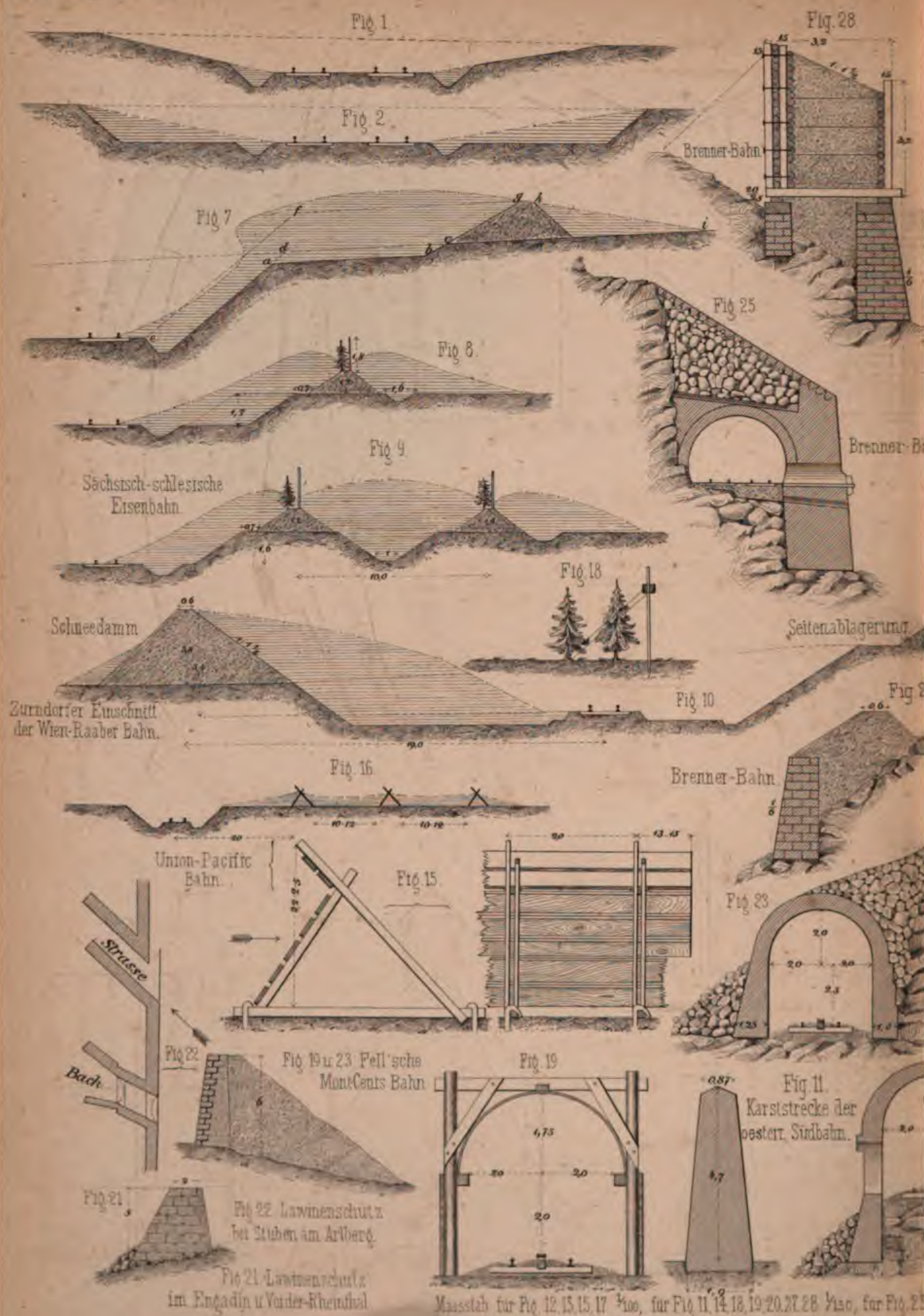
Patent-Nivelleur von Bruggér.

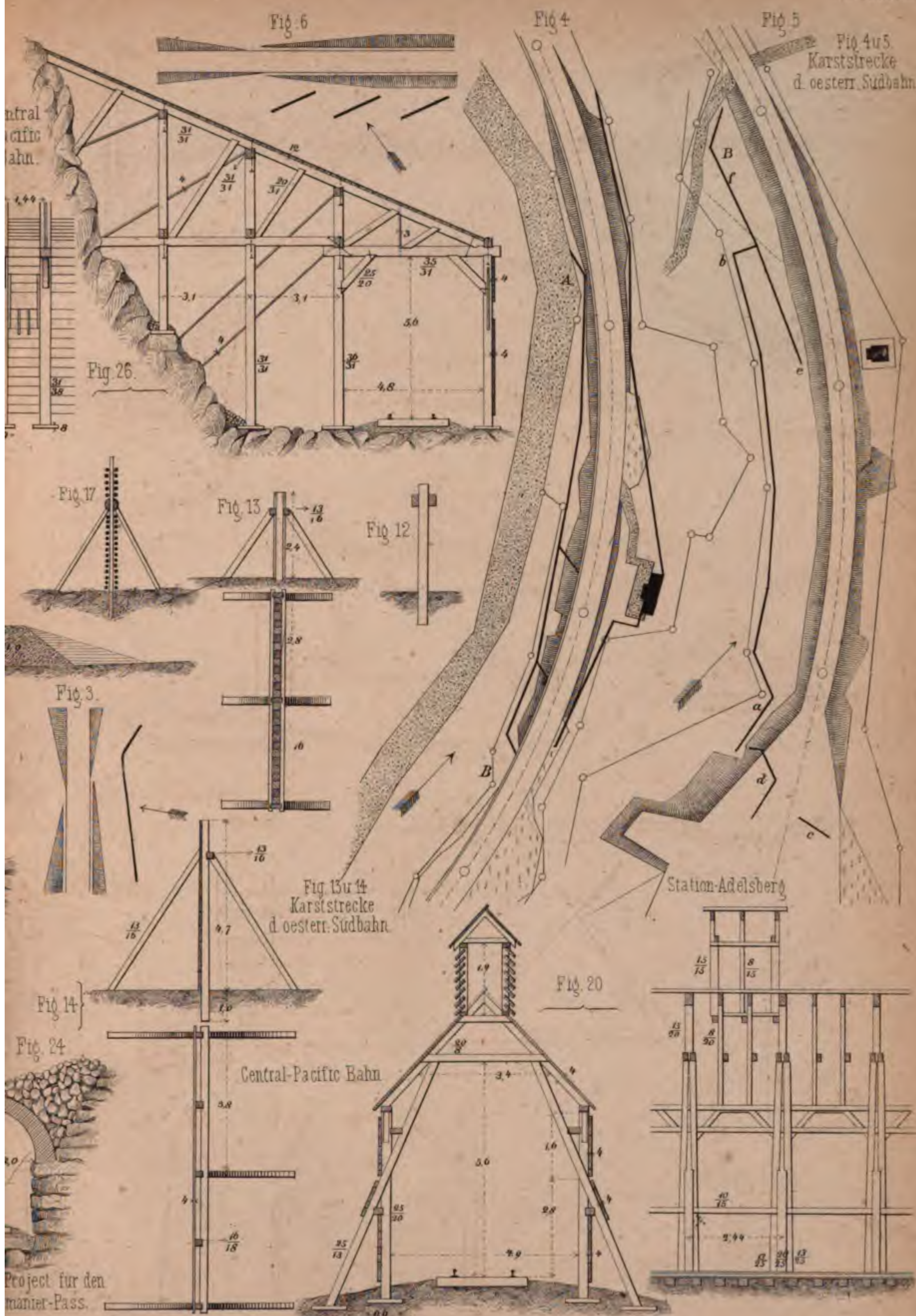


1:5 d. nat. Gr. Fig. 10.



Lith. Anst. v. E. Wirtz, Darmstadt.


Fig. 1.
Fig. 2.
Fig. 7
Fig. 8.
Fig. 9.
Sächsisch-schlesische Eisenbahn.
Fig. 18.
Schneedamm
Zurndorfer Einschnitt der Wien-Raaber Bahn.
Fig. 10.
Seitenablagerung
Fig. 16.
Union-Pacific Bahn.
Fig. 15.
Strasse
Bach
Fig. 22
Fig. 19 u. 23. Fell'sche MontCenis Bahn.
Fig. 19
Fig. 21
Fig. 22. Lawinenschutz bei Stuben am Arlberg.
Fig. 21. Lawinenschutz im Engadin u. Vorder-Rheinthal.
Fig. 28
Brenner-Bahn
Fig. 25
Brenner-B
Brenner-Bahn.
Fig. 23
Fig. 11.
Karststrecke der oesterr. Südbahn.
Maasstab für Fig. 12.13.15.17. 1/100, für Fig. 11.14.18.19.20.27.28. 1/150, für Fig. 2



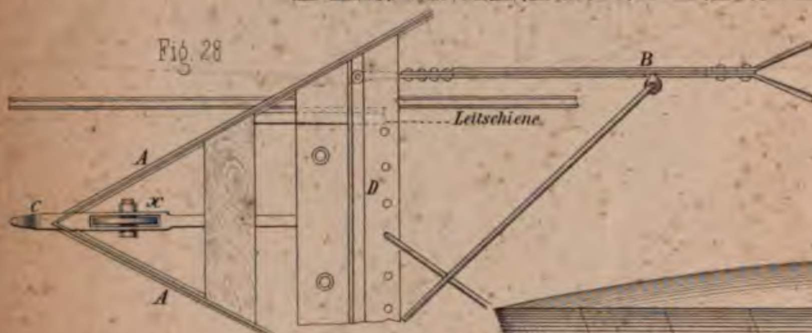
5 1/200, für Fig. 1.2.7.9.8.10 1/300, für Fig. 25 1/500, für Fig. 16 1/1000, für Fig. 3.4.5.6 1/2000 d. nat. Gr.

1:50 d. nat. Gr.

Fig. 16



Fig. 28



1:50 d. nat. Gr.

Fig. 17

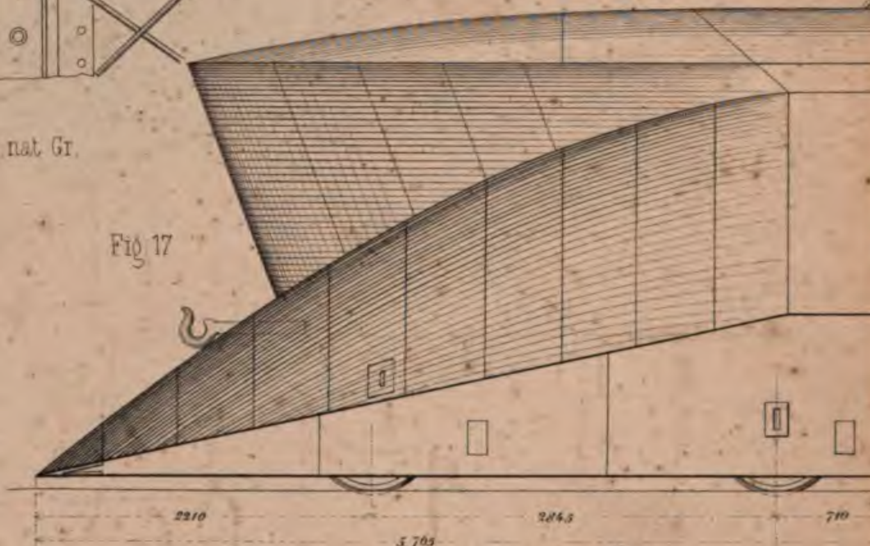


Fig. 26

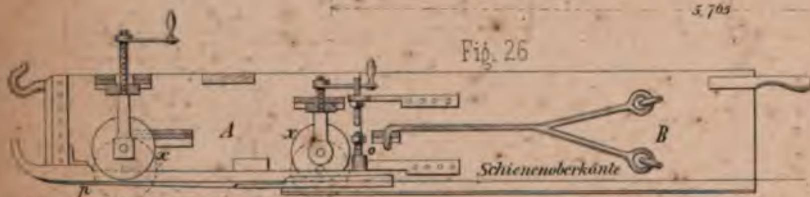


Fig. 27



Fig. 18a

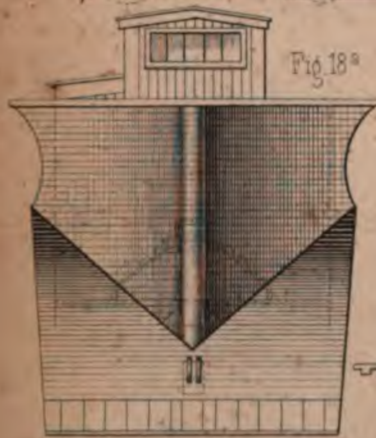
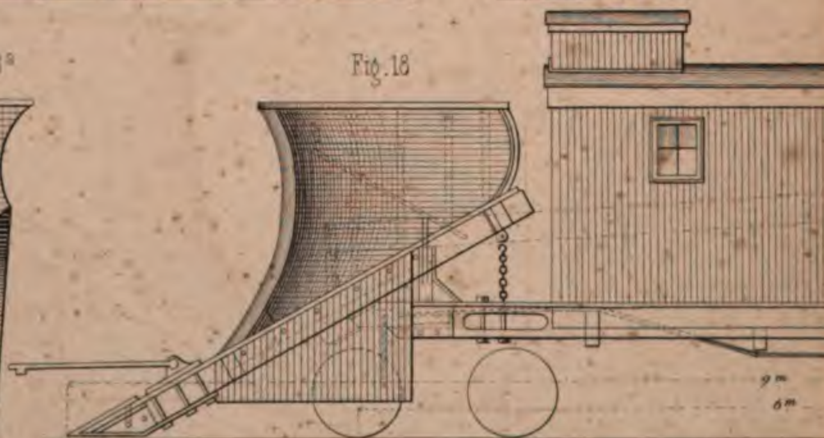
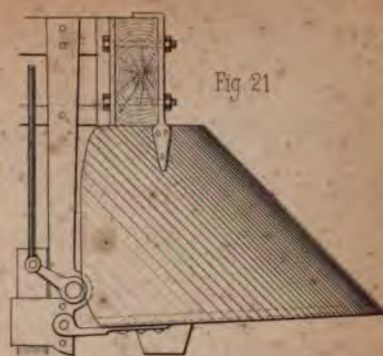


Fig. 18

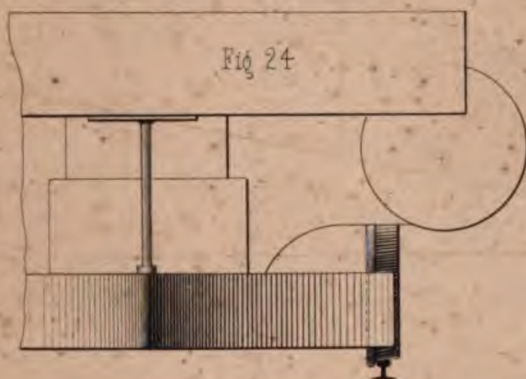


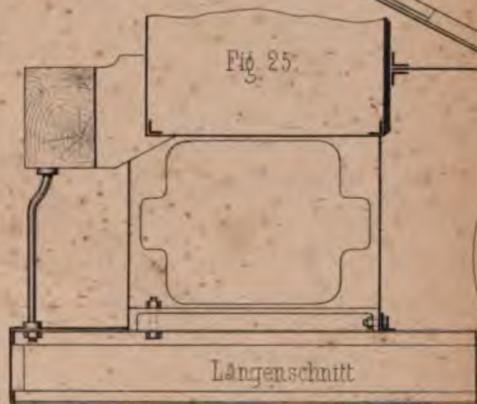


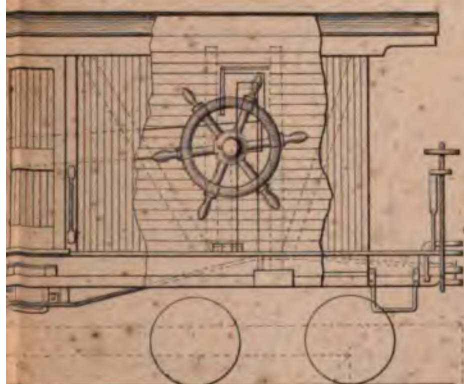


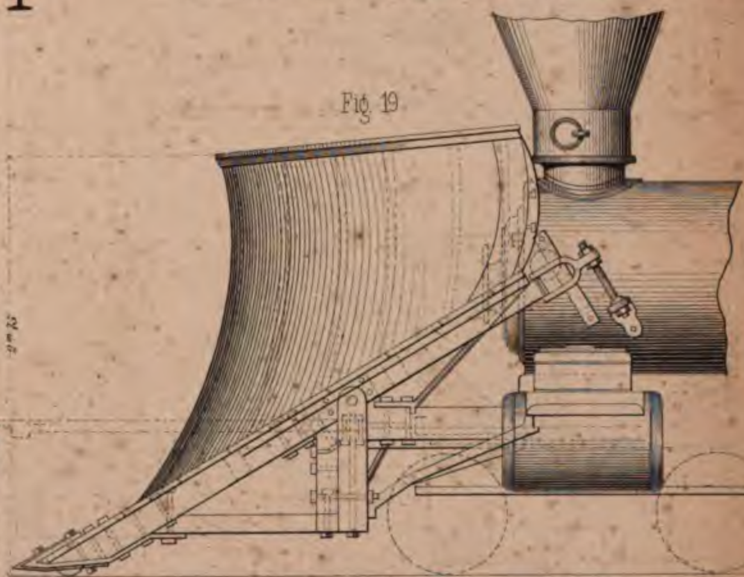












Lith. Anst. v. F. Wirtz, Darmstadt.

Rang

Bah

Die Ablauf
Li

CHEMN

ge.

N.

l.

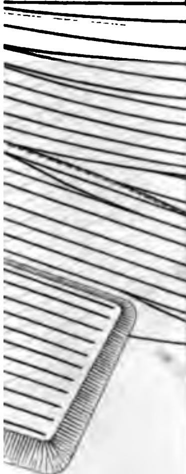
punktirte





BAHNHOFS





ıb 1:2000.

Graphischer Fahrplan der Hannoverschen Staatsbahn vom 1. Juni 1874.

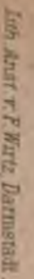
Frankfurt (MWB) · Eisenach · Cassel · D. St. Vorstation Cassel · Distanz-Stat. Ihringshsn · Kragenhof · D. St. Speele · Münden · Oberscheden · Dransfeld · D. St. Ossenfeld · Distanz-Stat. Ellershsn · Göttingen · Bovenden · Nörten · D. St. Sudheim · Northeim · D. St. Edesheim · Salzderhelden-Einbeck · Kreiensen · D. St. Hilprechtshs · Freden · Alfeld · D. St. Dehnsen · Banteln · Elze · Nordstemmen · Barnten · Sarstedt · Rethen · Wülfel · Hannover (C. B.)

von Hannover Meilen

Nordstemmen · Hildesheim (via Nordst. / via Lehrte) · Harsum · Algermissen · Sehnde · Lehrte

Reichsmeilen

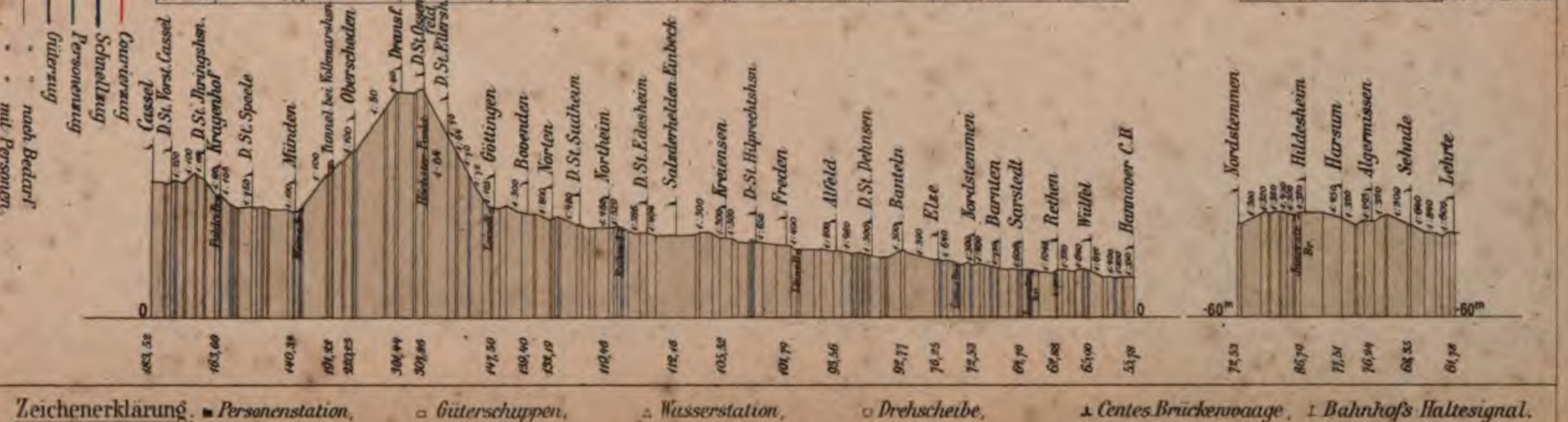
Kilometer


Lith. Anst. v. F. Wirtz, Darmstadt.

Taf. XLII.

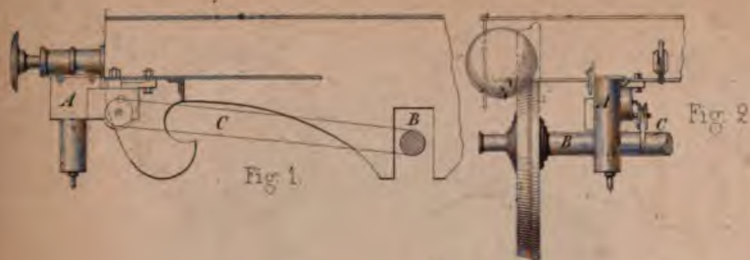


Cassel
Ladungszug
Extra P.Z.

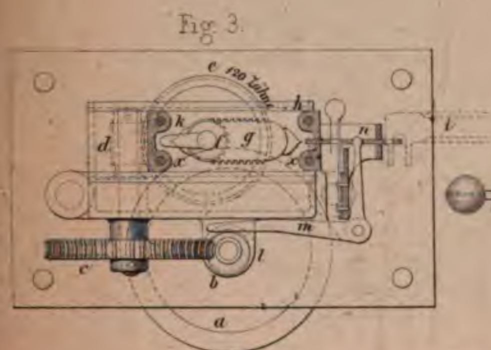


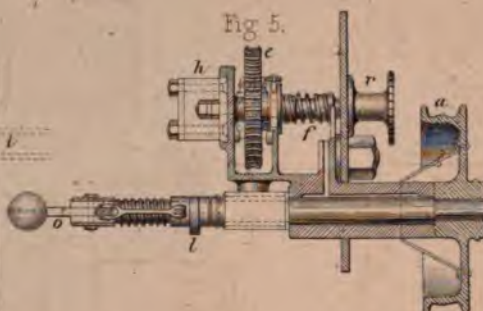
Cassel
Bahnmeistereien
Reichsmeilen
Stat. Entfern.
No d. Wärterhäus.
Cassel
D. St. Vorst. Cassel
D. St. Ihringshsn.
Kragenhof
D. St. Speele
Münden
Tunnel bei Volkmarshsn.
Oberscheden
Dransf.
D. St. Ossenfeld
D. St. Flüthsk.
Göttingen
Bovenden
Nörten
D. St. Sudheim
Northeim
D. St. Edesheim
Salzderhelden-Einbeck
Kreiensen
D. St. Hilprechtshsn.
Freden
Alfeld
D. St. Dehnsen
Banteln
Elze
Nordstemmen
Barnten
Sarstedt
Rethen
Wülfel
Hannover C. H.
Nordstemmen
Hildesheim
Harsum
Algermissen
Sehnde
Lehrte
Courierzug
Schnellzug
Personenzug
Güterzug
" " nach Bedarf
" " mit Personen.
Zeichenerklärung. Personenstation, Güterschuppen, Wasserstation, Drehscheibe, Centes. Brückenwaage, Bahnhofs-Haltesignal.

Controle der Züge u

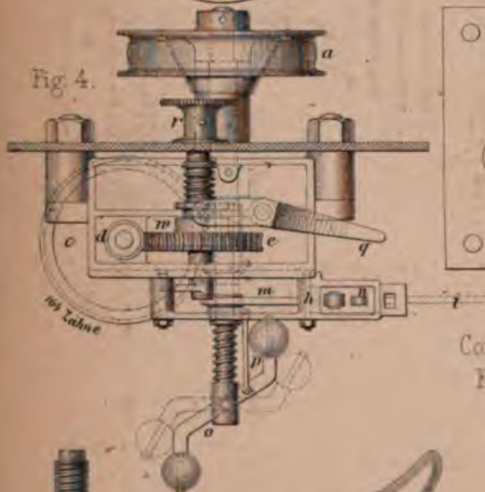


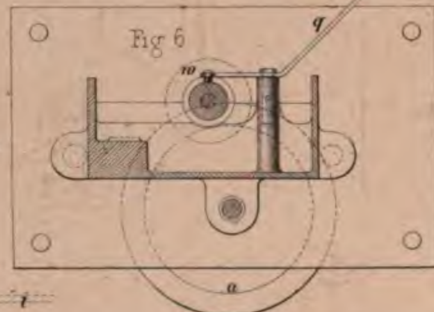






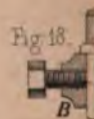






Lindner's Einrichtung der Centesimalwaage zum Probiren der Wagendecke.

Control-Apparat der Cöln Mindener Bahn.
Fig. 1 u. 2 = 1/40 d.n.Gr. Fig. 3-6 = 1/5 d.n.Gr.



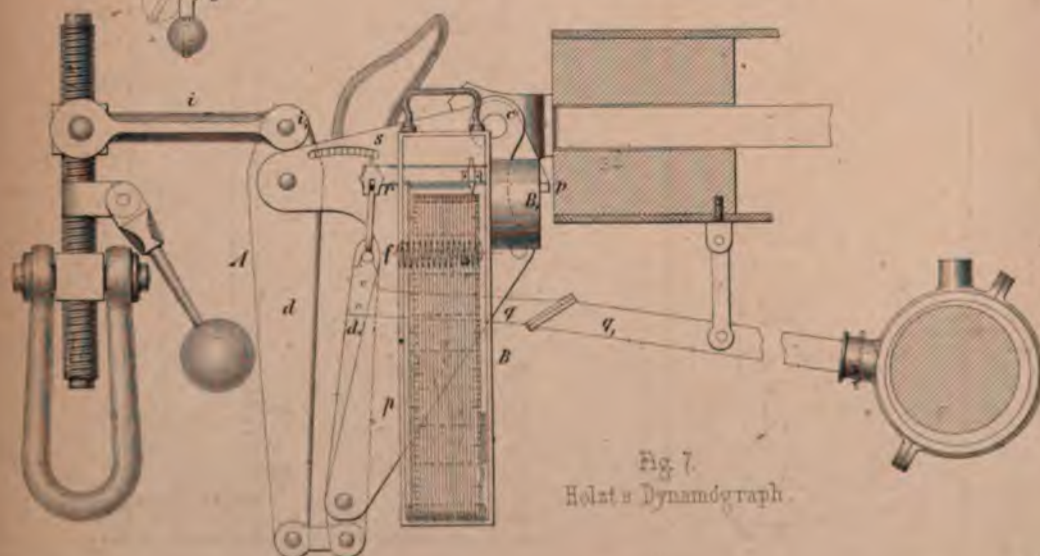
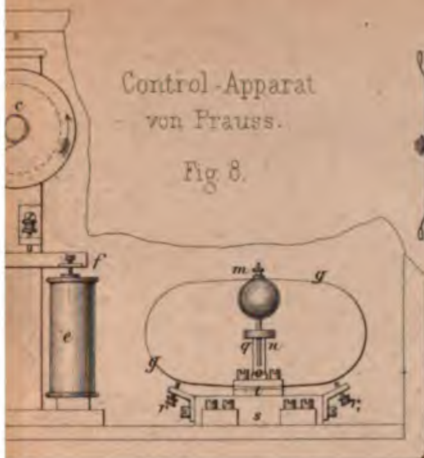


Fig. 7.
Holtz's Dynamograph.

Lith. Anst. v. F. Wirtz Darmstadt.


Control-Apparat
von Prauss.
Fig. 8.

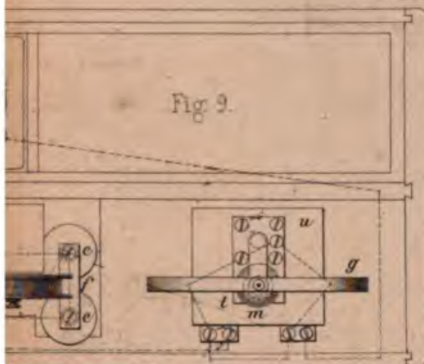

Fig. 9.


Fig. 10.


Fig. 11.
Sammann
& Webers Control-uhr für
Eisenbahnzüge.

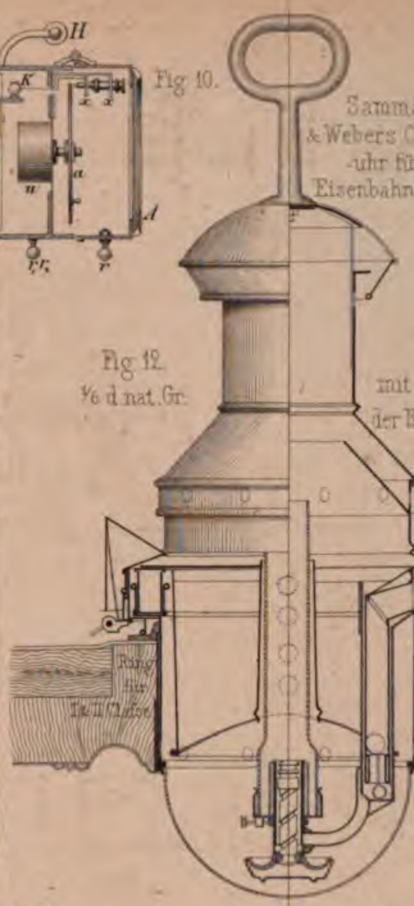
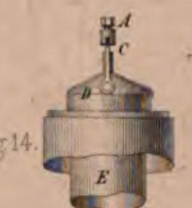
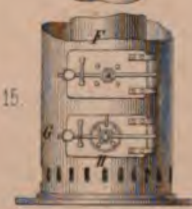

Fig. 12.
1/6 d. nat. Gr.
Coupé Laterne
mit Argand'schem Brenner
der Hannover'schen Staatsbahn.
Eisen resp. Eisenblech.
Glas.
Messing.


Fig. 16.
1/10 d. nat. Gr.

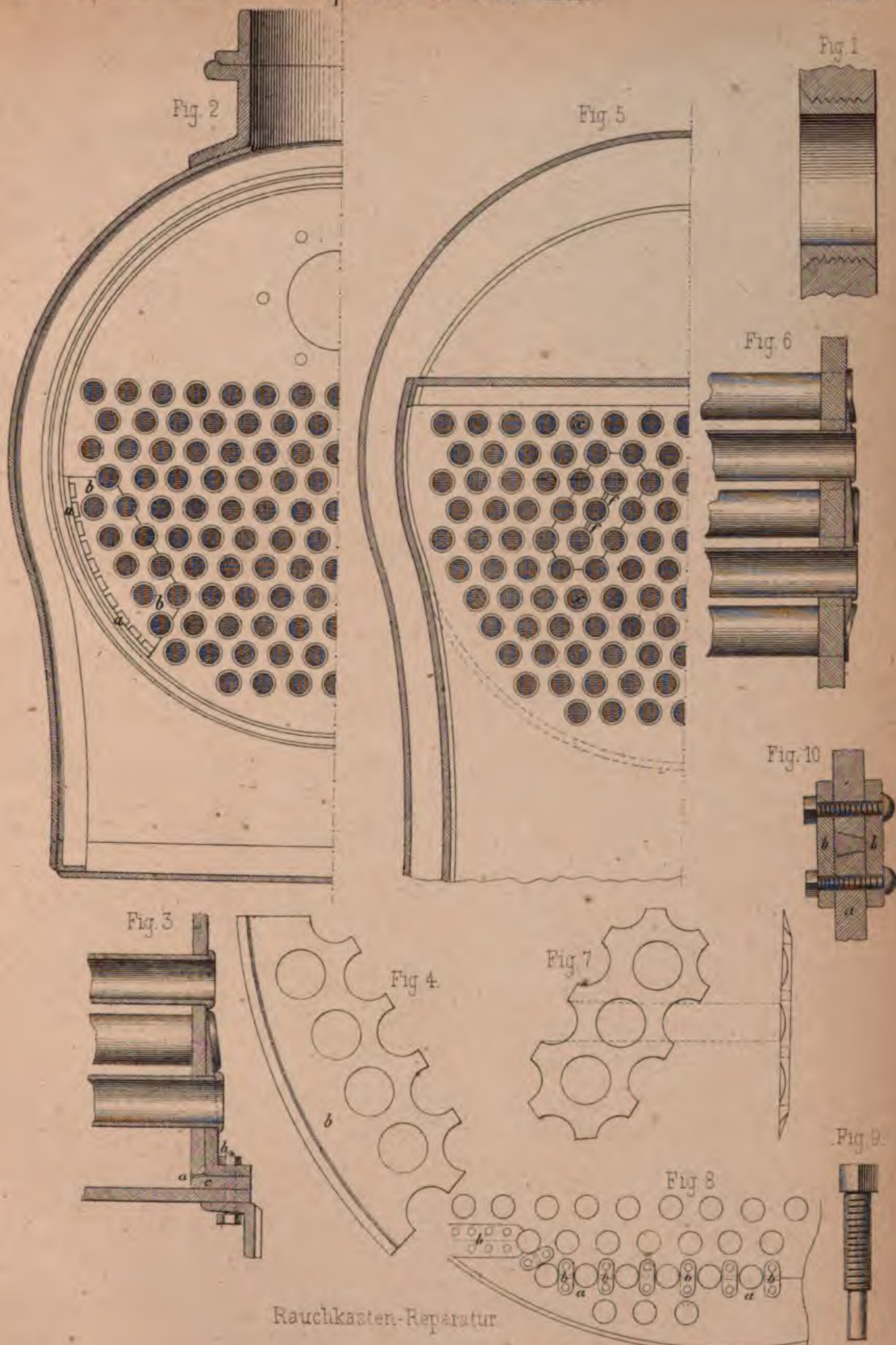

Fig. 17.


Fig. 14.

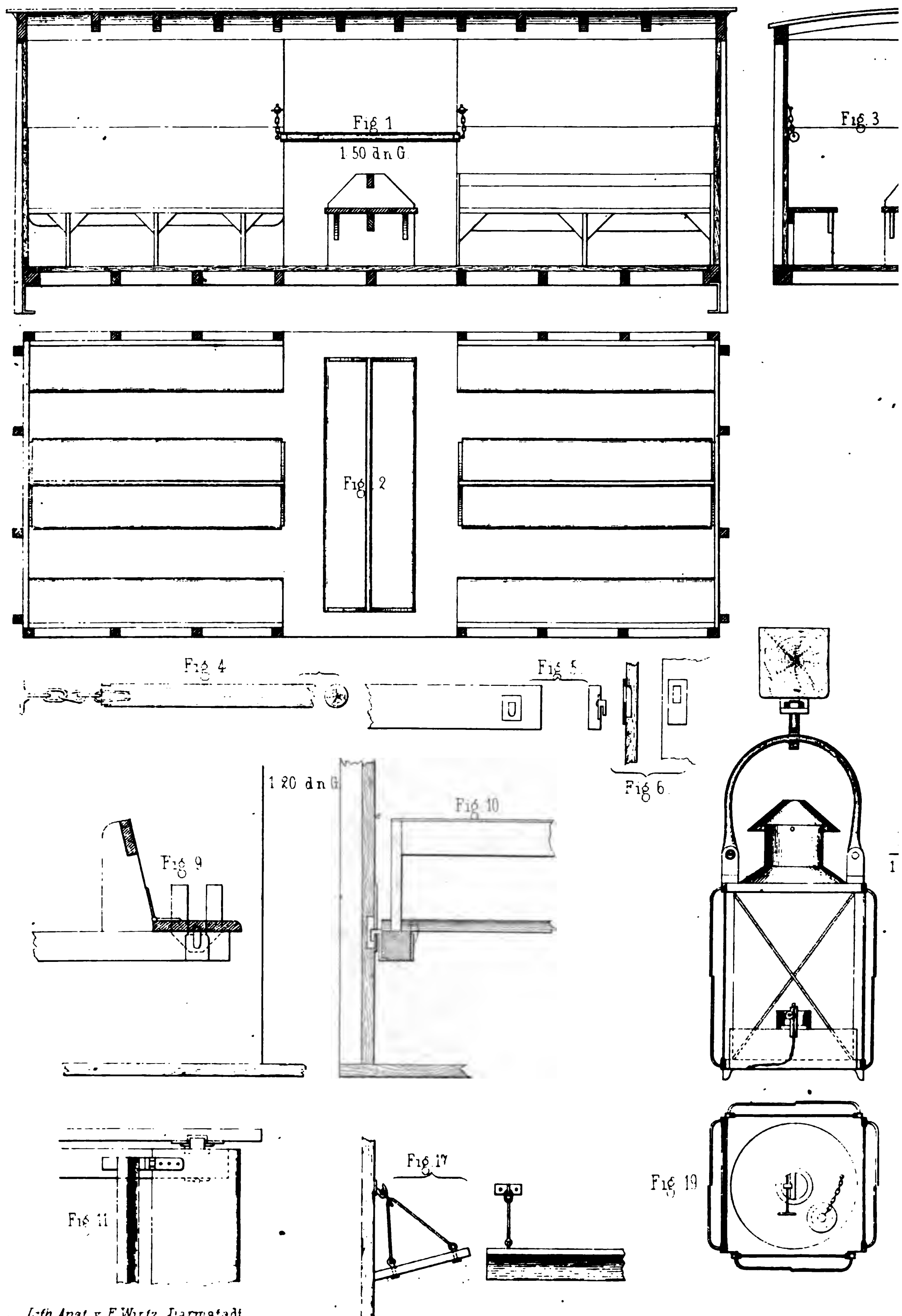

Fig. 15.


Wagendecke
Fig. 13.
Füllofen zum Heizen
der Personen-Züge.

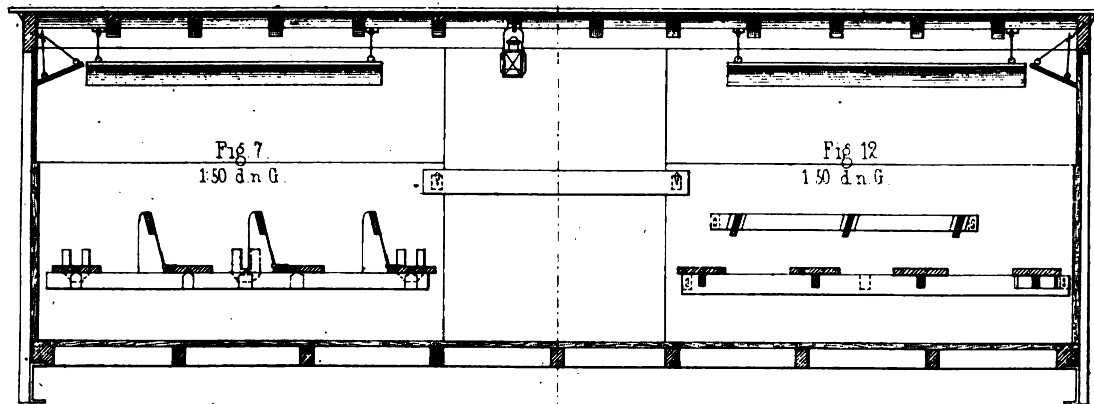
Reparatur der Rohrwände.

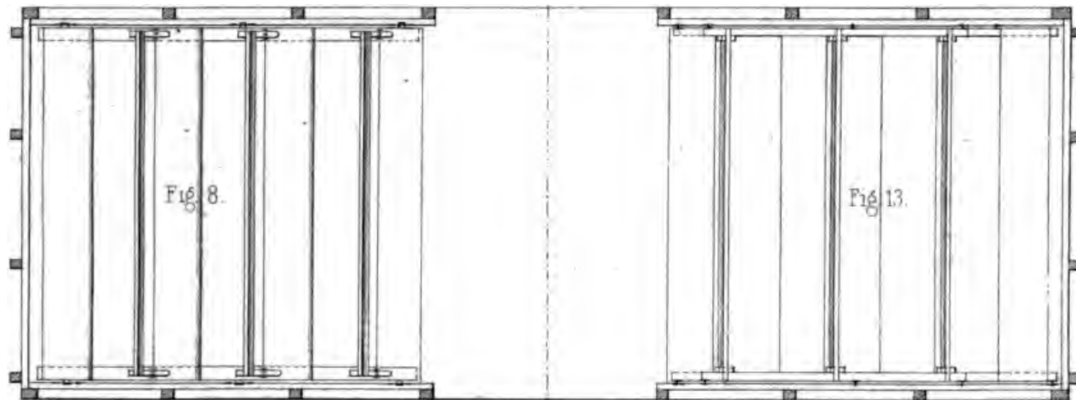


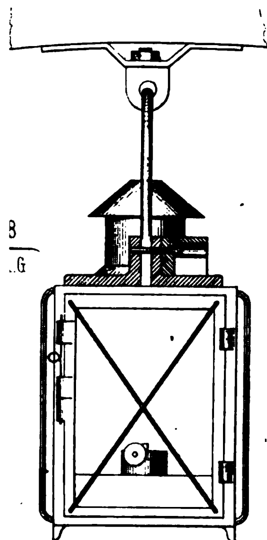
Lith. Anst. F. Wirtz, Darmstadt.

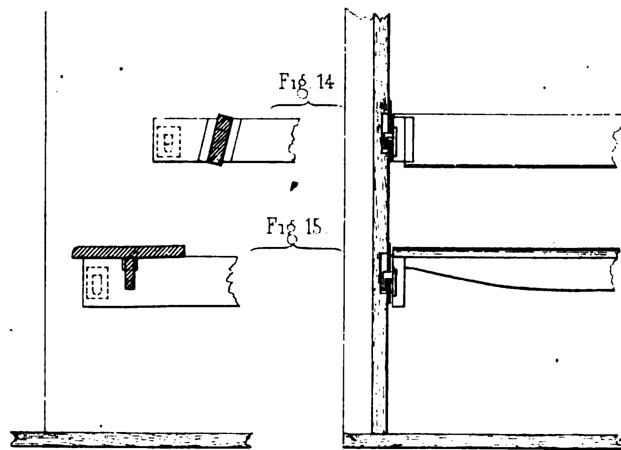


Lith Anst v F Wirtz, Darmstadt

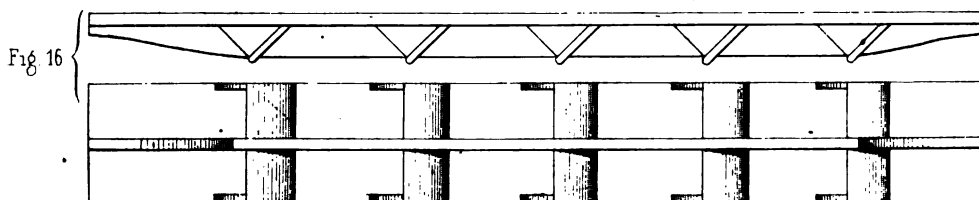

Fig. 7.
1:50 d.n.G.
Fig. 12
1:50 d.n.G.

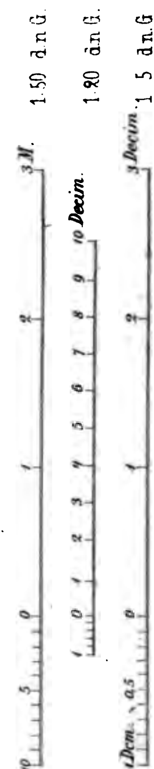

Fig. 8.
Fig. 13.

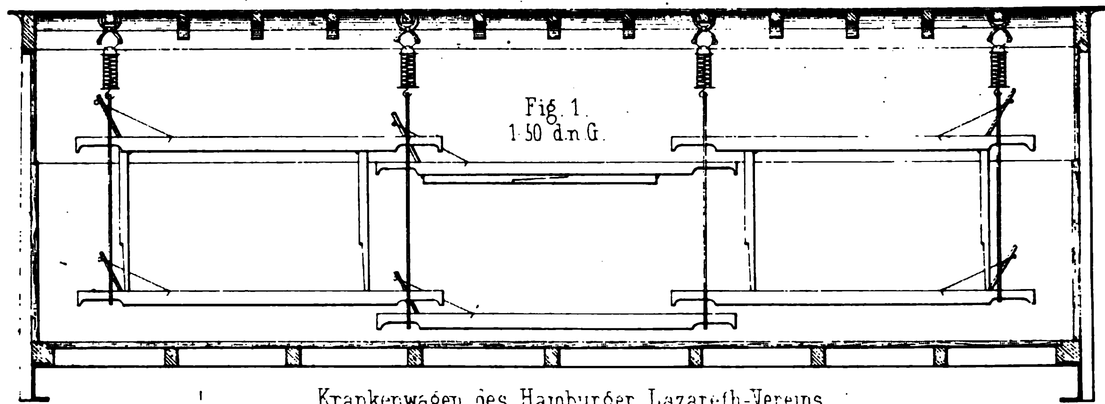



Fig. 14
Fig. 15

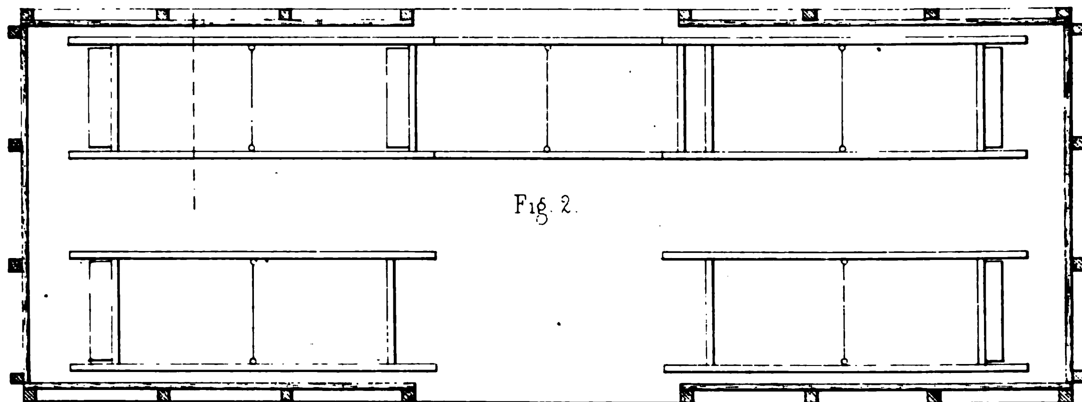
1:20 d.n.G.

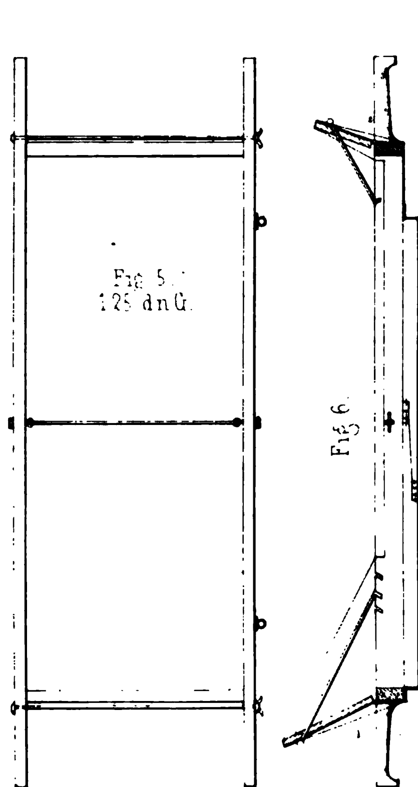

Fig. 16

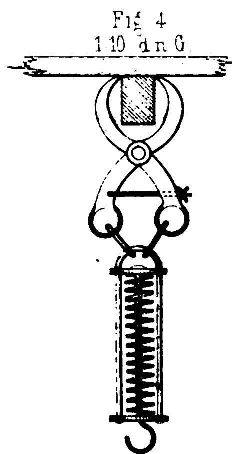

1:50 d.n.G.
1:20 d.n.G.
1:5 d.n.G.
3 M.
10 Decim.
3 Decim.

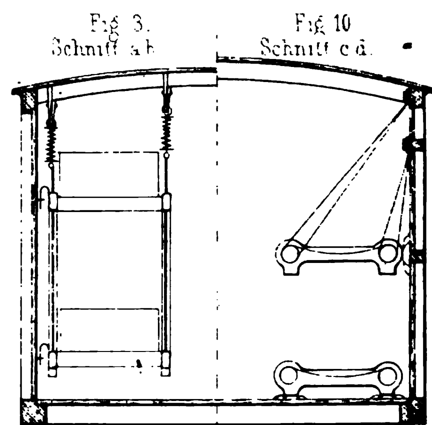


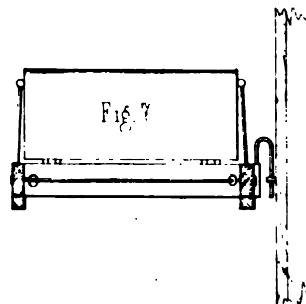
Krankenwagen des Hamburger Lazareth-Vereins

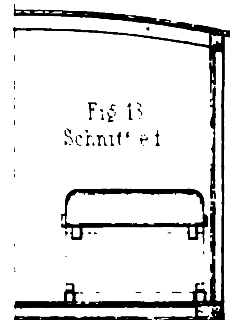




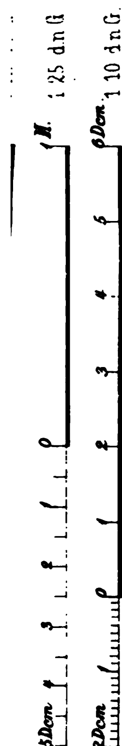


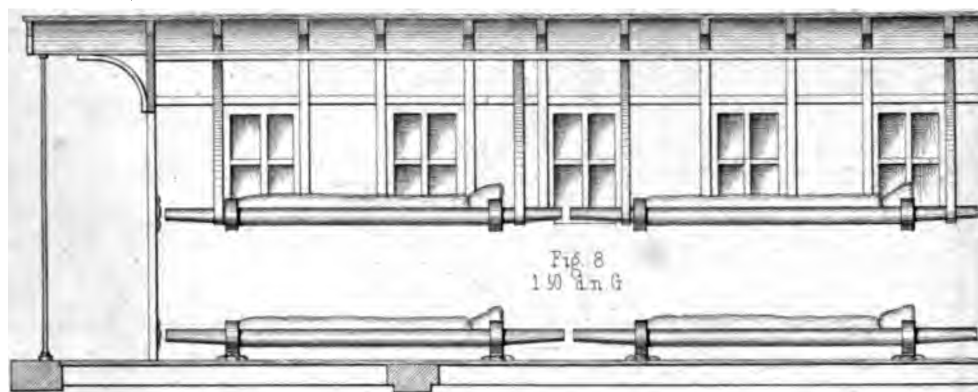




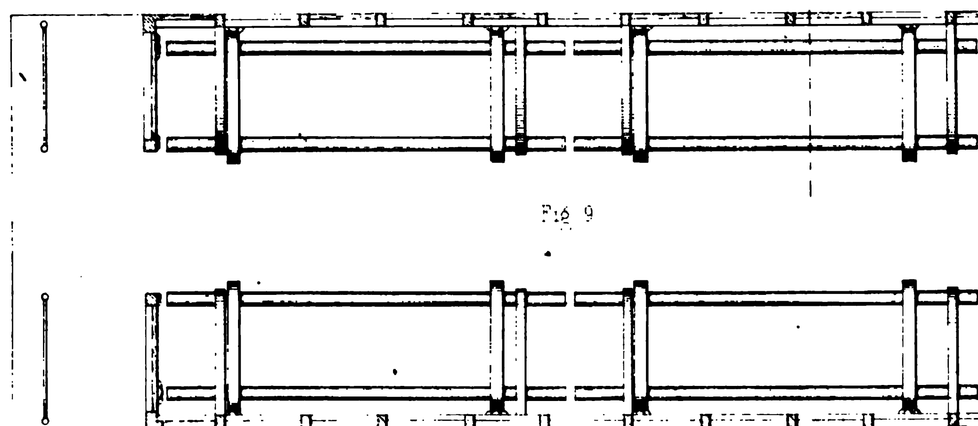


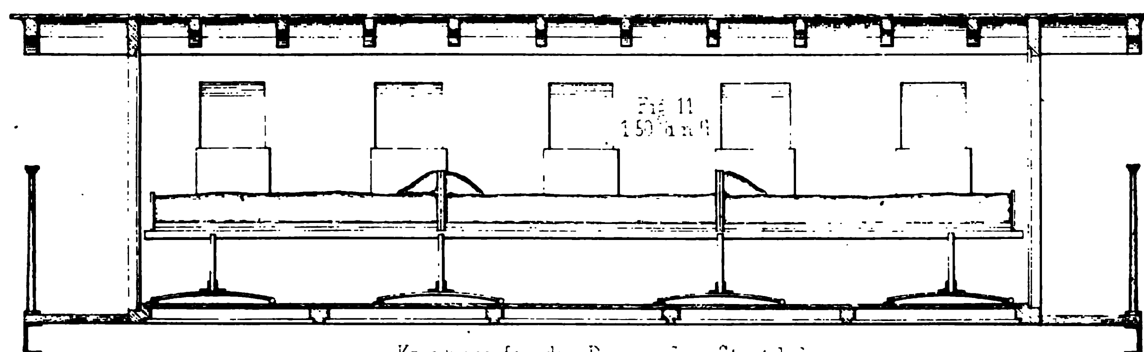
Lith. Anst. v. F. Wirtz Darmstadt



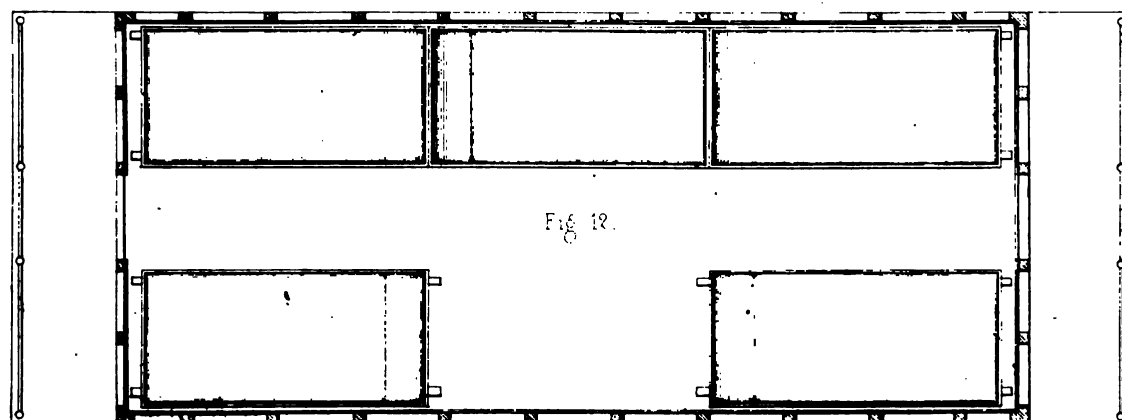


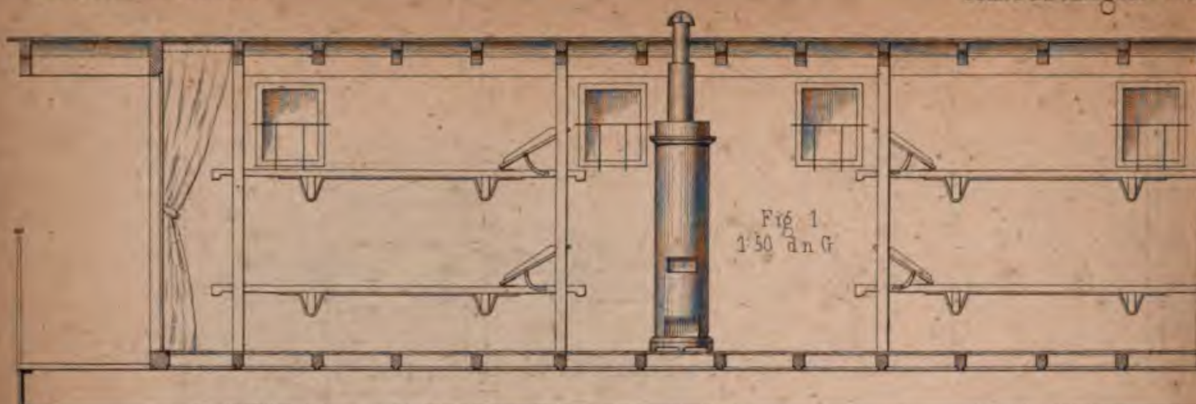
Krankenwagen der Württembergischen Staatsbahn



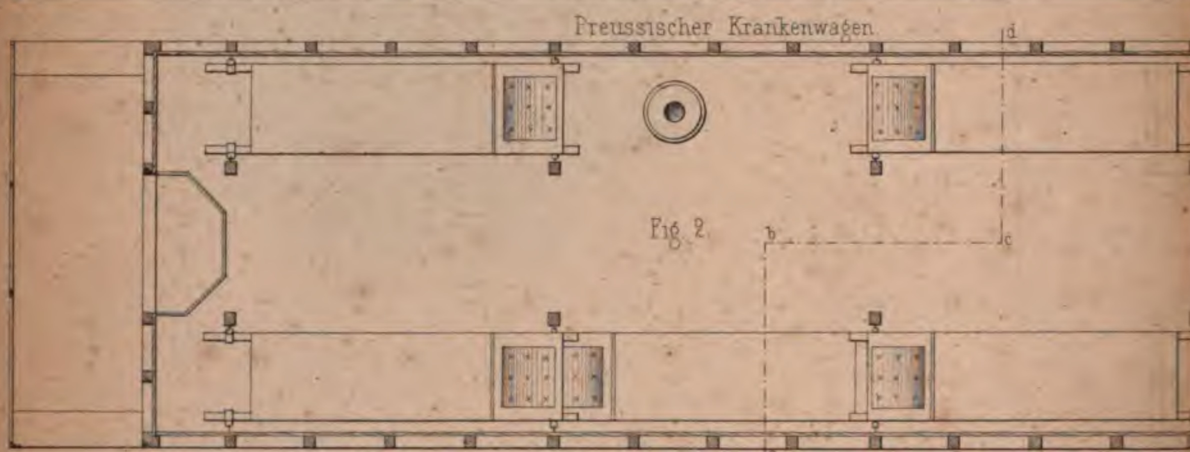


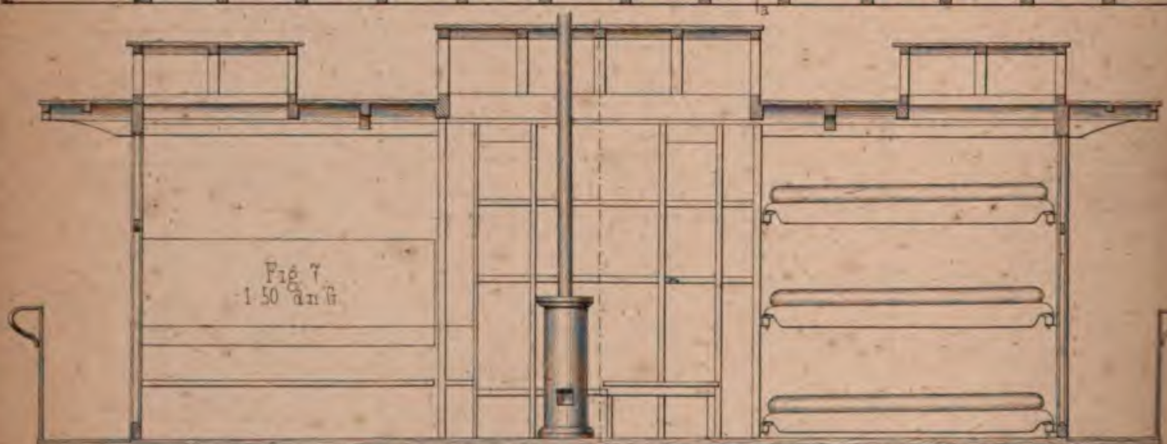
Krankenwagen der Bayerischen Staatsbahn

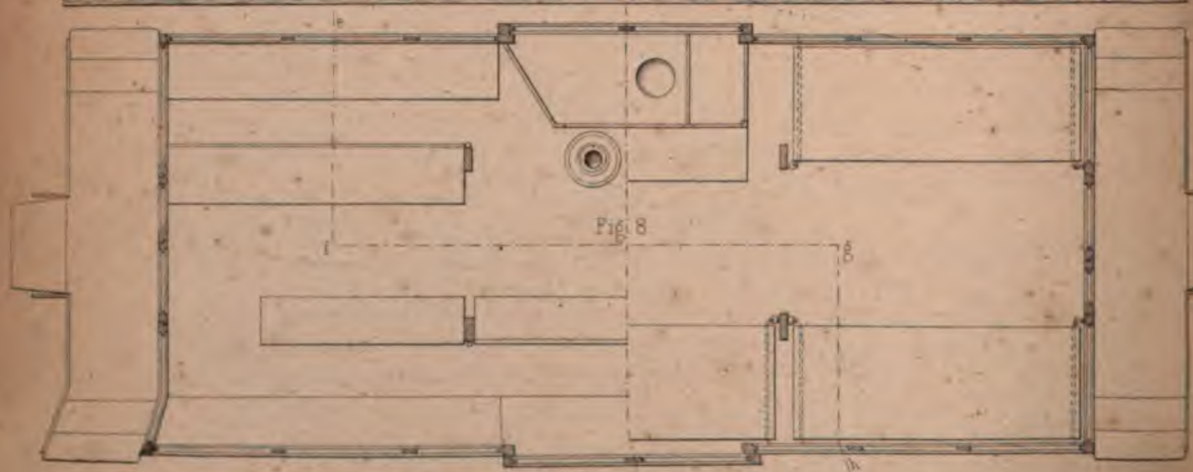


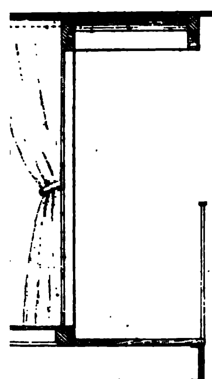


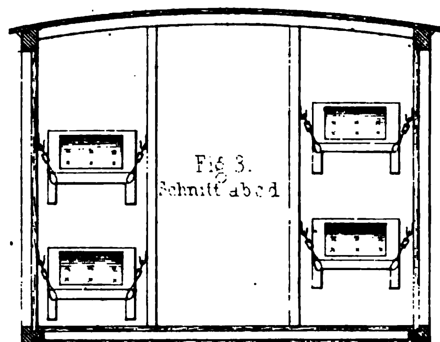
Preussischer Krankenwagen.

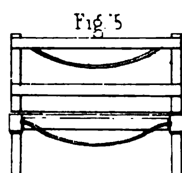












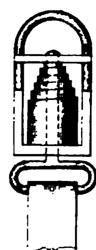


Fig. 6.
1:5 d.n.G.



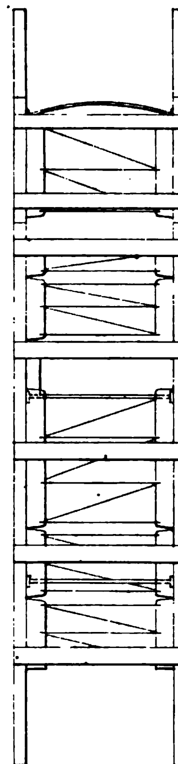
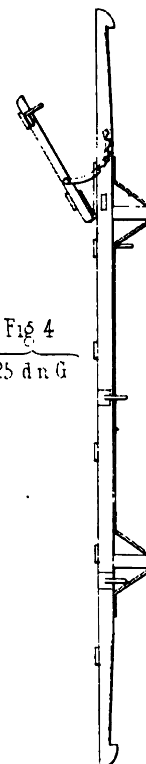
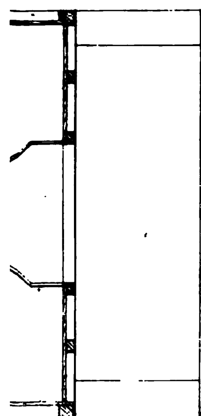
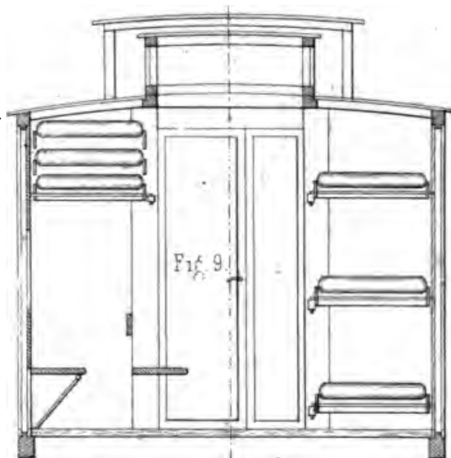


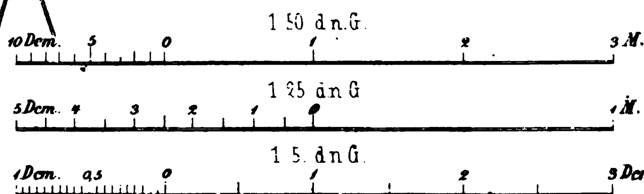
Fig. 4
1:25 d.n.G.



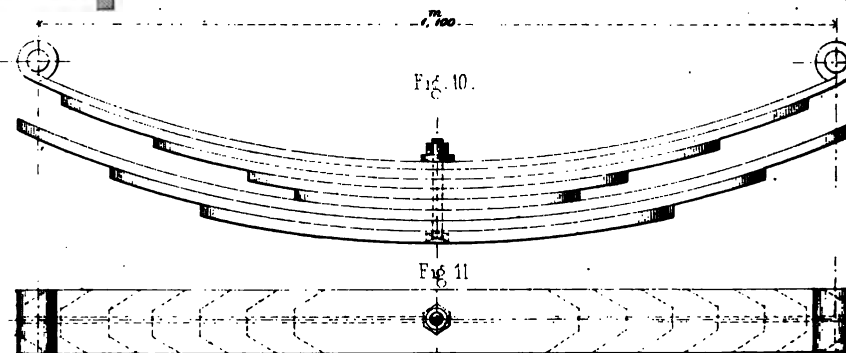




Schnitt efgh.
Krankenwagen des
.ranzösischen Hilfsvereins



Tragfeder für Güterwagen,
für Lazarethwagen umgeändert.



Lith. Anst. v. F. Wirtz, Darm.

Elsass-Lothring

Fig. 1. Längenschnitt.

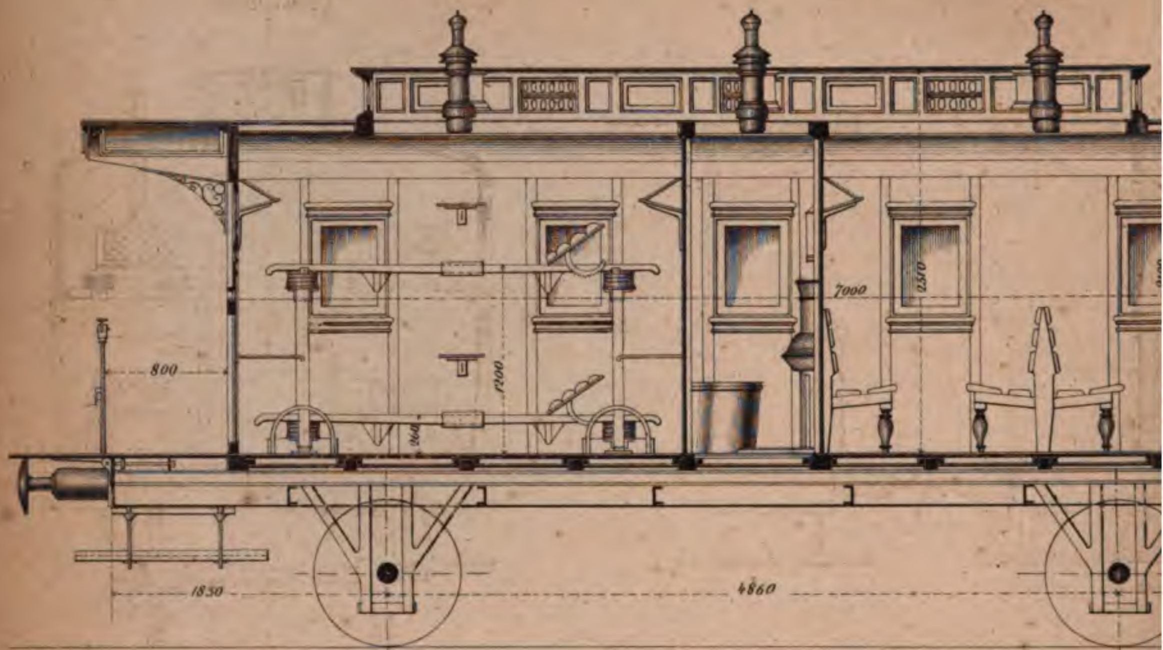
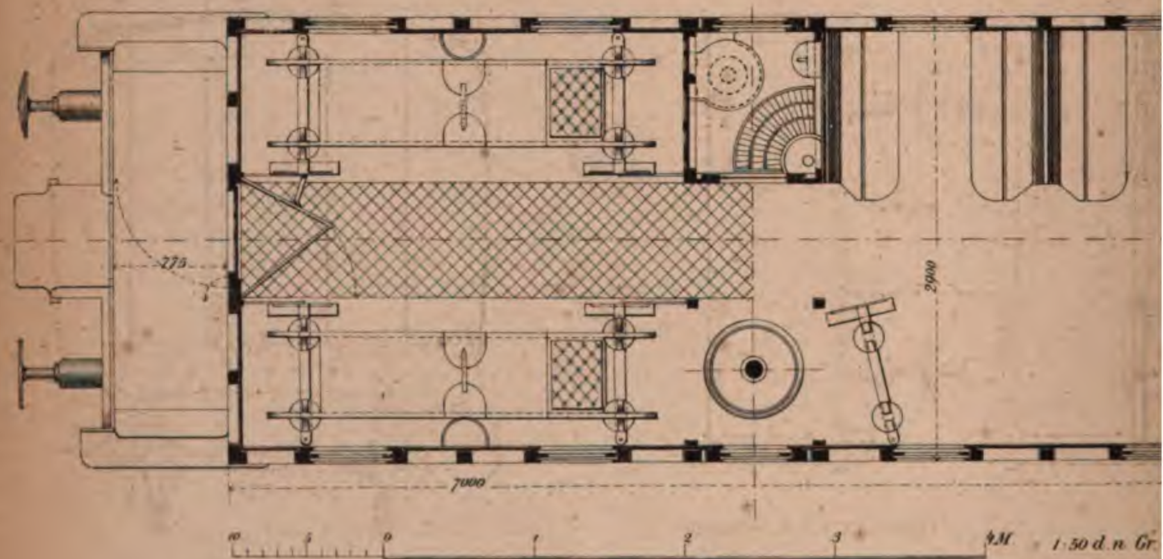
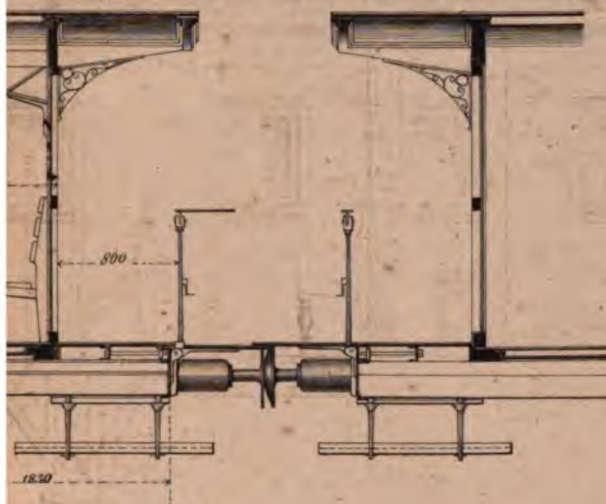
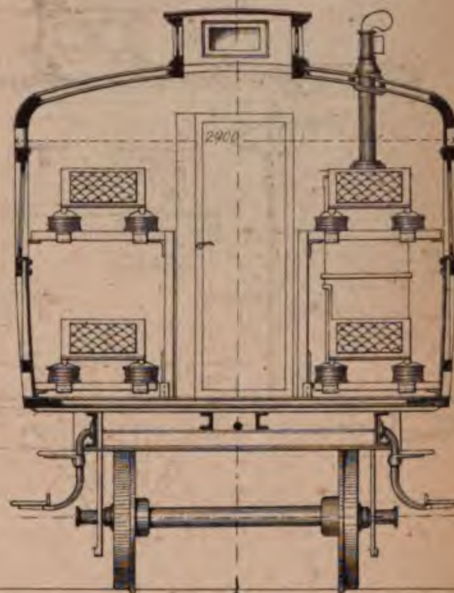


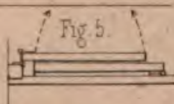
Fig. 2. Grundriss.

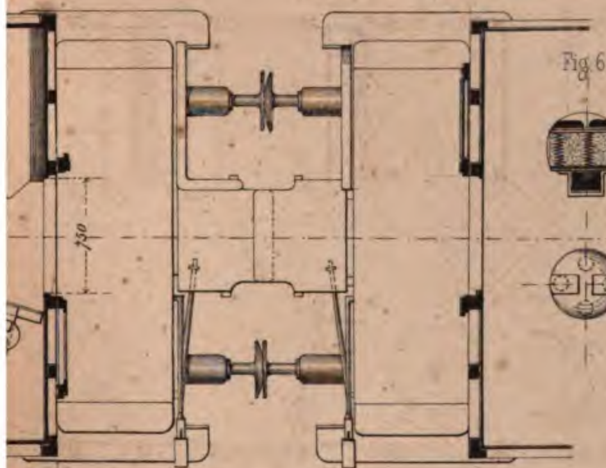


Lith. Anst. v. E. Wirtz, Darmstadt.











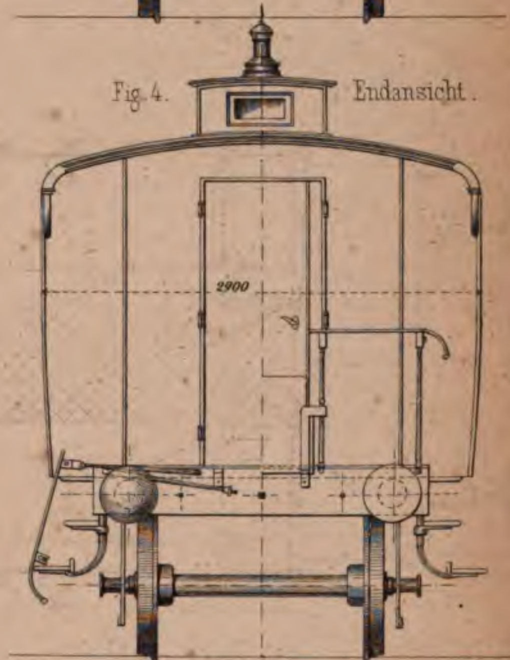
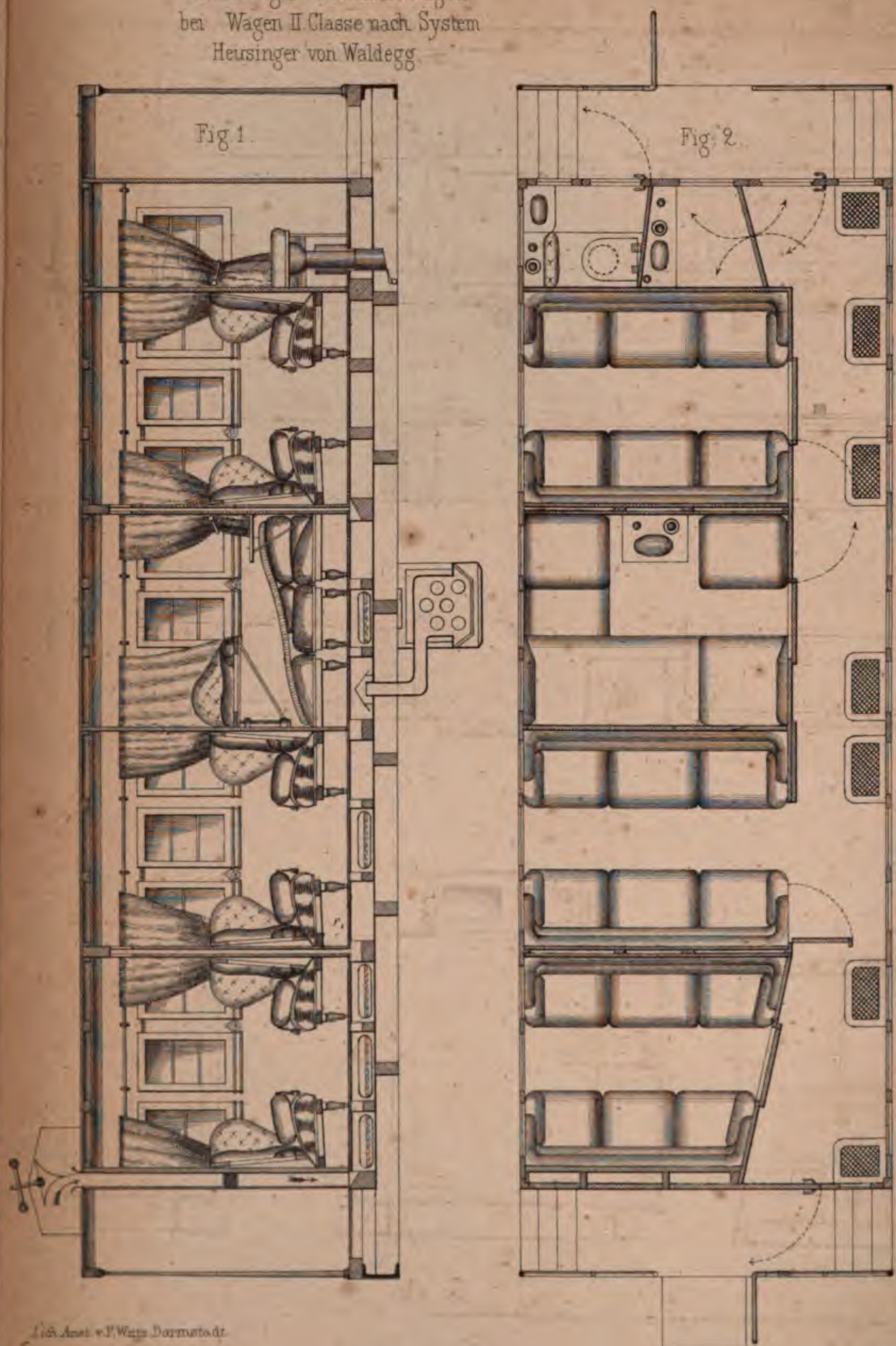
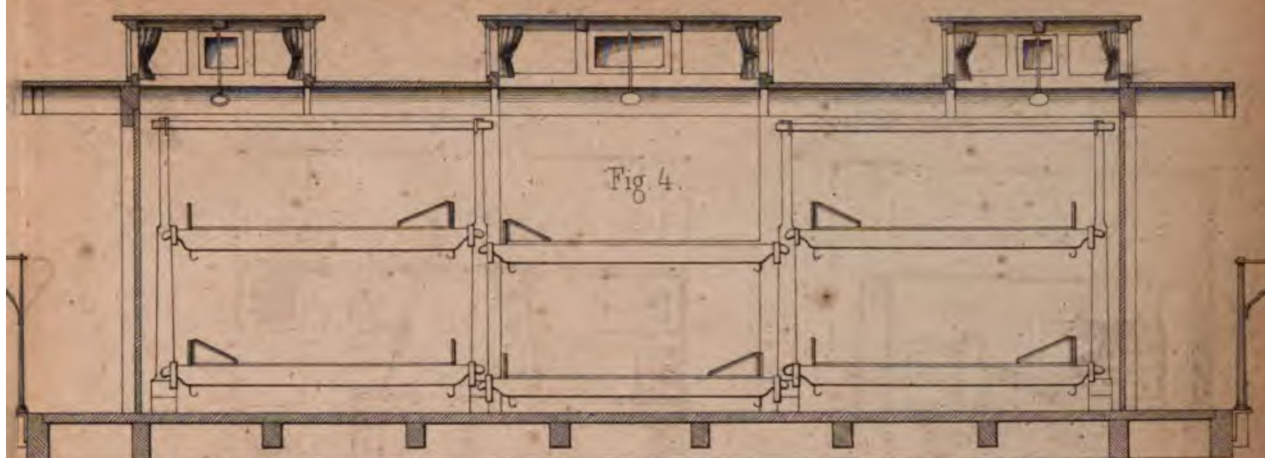


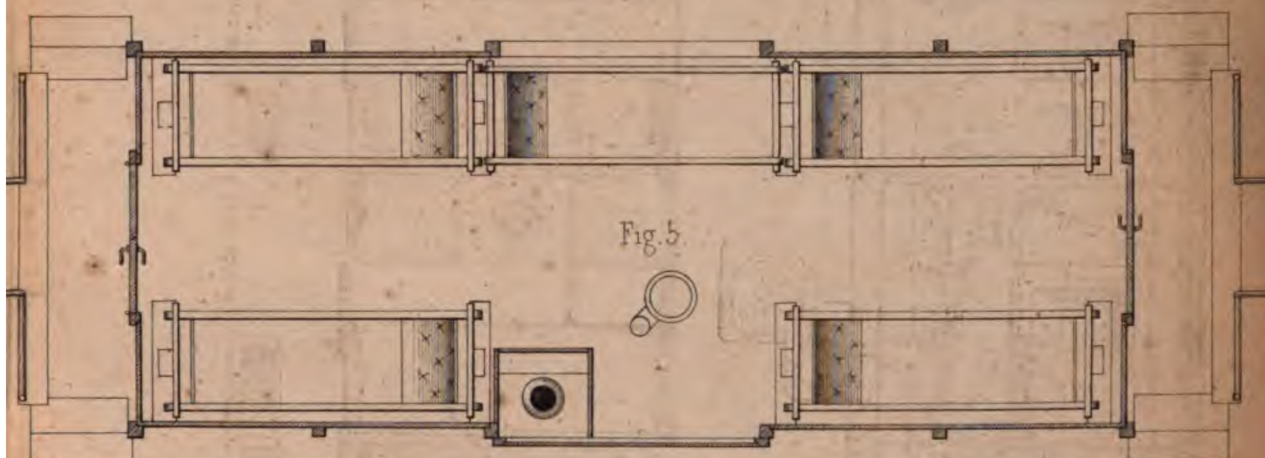
Fig. 1. 2. 3. 4. 5. 1:50 d. n. Gr.
Fig. 6 1:20 d. n. Gr.

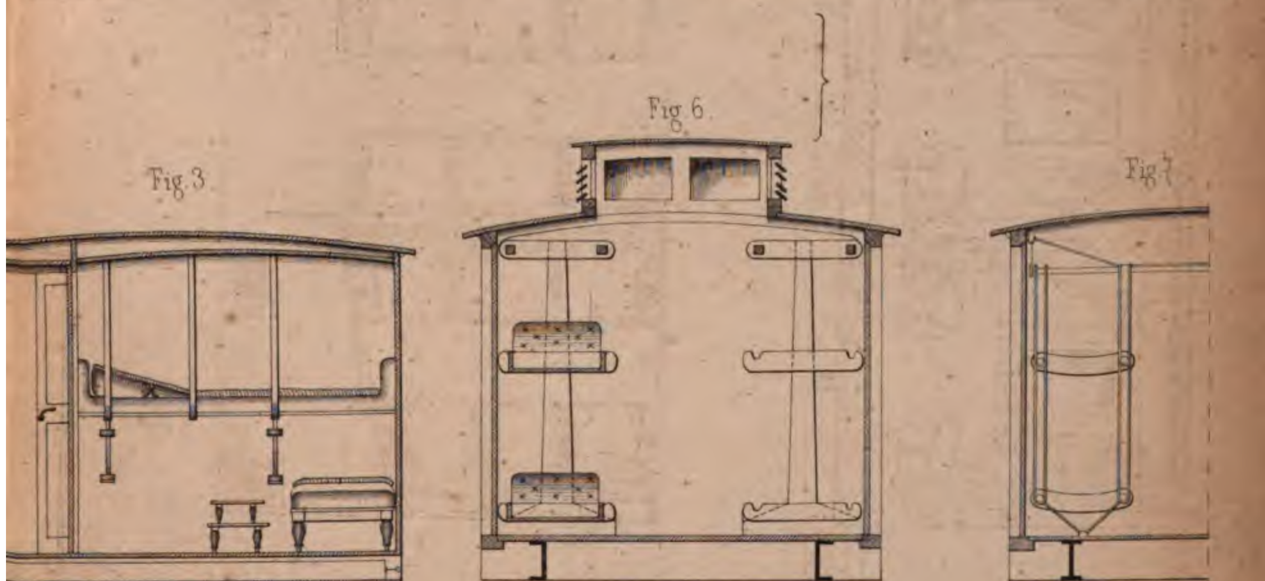
Dr. Helbig's Krankenwagen
bei Wagen II. Classe nach System
Heusinger von Waldegg.



Lith. Anst. v. F. Wirtz, Darmstadt.


Fig. 4.


Fig. 5.


Fig. 3.
Fig. 6.
Fig. 7.
10 5 0 1 2 3 4 M.
1:50 d. n. Gr.

